A critical realism approach to Public Health interventions that aim to prevent obesity in selected European countries

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A Thesis submitted to the University of Warwick in partial fulfilment for the Degree of Doctor of Philosophy

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May 2015

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Acknowledgements

In the four-year journey of doing the research to write the present thesis, I was not alone. Many people were pivotal to my effort. The journey could not have started without the encouragement and love of my husband Dimitrios who helped me to believe I could start travelling and kept believing this until the end. I would like to thank him for his endless support. I would also like to honestly thank my daughter and my family for supporting me and encouraging me all the way through.

This journey, though, would not carry on without the genuine support and the wise guidance of my supervisors at Warwick University, Prof. Elizabeth Dowler and Prof. Margaret Thorogood. This thesis is the product of endless hours of discussions informed by their expertise and experience. I am indebted to Elizabeth for her warm hospitality and generosity.

I thank Francesco Branca, the Regional Adviser for Nutrition and Food Security in the World Health Organisation Regional Office for Europe, from the time this dissertation started, for the valuable support he provided me with.

Finally, this research would not have been possible without the kind informants that took part in the study. I extend my gratitude to all interviewees of the Healthy Weight Communities project, the Movement as Investment for Health project and the Walking for Health project, for their priceless time and the dedication with which they shared their experiences with me, arranged further interviews, introduced me to other people and arranged my stay in Erlangen University.

Declarations

I declare that this thesis contains my own research performed under the supervision of Prof. Elizabeth Dowler of the Department of Sociology and Prof. Margaret Thorogood of the Medical School, University of Warwick. I confirm that this thesis has not been submitted for a degree at another university.

Abstract

The aim of this thesis is to understand the important components of a set of sustainable interventions to prevent obesity at the community level by using realistic evaluation, which draws on the philosophy of critical realism.

From the application of a structured set of criteria based on critical realism, three interventions emerged, which were selected as the case studies of my thesis: the 'Healthy Weight Communities' project in Scotland, the 'Bewegung als Investition in Gesundheit' (Movement as Investment for Health) project in Germany, and the 'Walking for Health' project in England. Based on the key concepts of critical realism an interview topic guide was developed, which was tested by the help of the pilot project 'Paideiatrofi' in Greece. Key personnel involved in the organisation of each of the three selected interventions were identified and qualitative research and data analysis was carried out.

The framework of critical realism and the application of the key concepts of realistic evaluation: 'generative mechanisms', 'context' and 'outcomes', enabled the disentangling of which mechanisms from each case study, were most related to outcomes and under which contexts.

A number of common themes emerged from the analysis of the three interventions. Reflecting on these common themes, I connected them to a set of more abstract categories associated with the social structure, the human agency and the emergent outcomes with their distinguished properties.

Critical realism and realistic evaluation provided a conceptual guide which allowed me to explain how the effects of the interventions were produced by the interplay between structural conditions and people as agents. The study of the contextual factors and of the generative mechanisms that enabled or constrained the production of certain outcomes, constituted a novel approach to explain how and why the selected interventions worked to prevent obesity.

Abbreviations

BIG	Bewegung als Investition in Gesundheit [=Movement as Investment for Health]
BMI	Body Mass Index
CMO	Context, Mechanism, Outcome
EC	European Commission
EU	European Union
GP	General Practitioner
HDI	Human Development Index
HWC	Healthy Weight Communities
ICD	International Classification of Diseases
IOTF	International Obesity Task Force
NGO	Non-governmental organisation
NHS	National Health System
PA	Physical Activity
PBC	Protocol-based care
PCT	Primary care trust
RCT	Randomised controlled trial
SD	Standard deviation
SES	Socioeconomic status
SIMD	Scottish Index of Multiple Deprivation
UK	United Kingdom
USA	United States of America
WfH	Walking for Health
WHO	World Health Organisation

Chapter 1: Introduction

The issue of understanding the nature of obesity and what can be done to prevent it attracts interest from many different parts of society. The medical world and the public health establishment put effort into serious action on understanding and addressing obesity. The focus of this research is to bring some of the insights from realistic evaluation, which draws on critical realism philosophy and to understand what it is about particular ways of addressing obesity which enables these interventions to work. Why is it that some interventions have managed to make a difference in peoples' lives such as helping them to not gain weight?

This thesis uses a realistic evaluation approach to examine interventions which aim at the prevention of obesity. In particular, the nature of this enquiry is to understand the important components of sustainable interventions to prevent obesity by using realistic evaluation, which links to the philosophy of critical realism.

Critical realism is a tradition in the philosophy of natural and social sciences, mainly associated with the work of British philosopher Roy Bhaskar. Ontologically, one of the central points in critical realism is the view that reality is constructed from generative mechanisms that produce events. Generative mechanisms are in a sense the way things act in the world and they do this autonomously of humans (Bhaskar 2008). Ontologically, causality in a realist explanation is established not on the basis of associations but goes beyond and behind them, to the social structures that generate them (Carter & New 2004). Pawson & Tilley (1997) propose realistic evaluation as a field method

to uncover and assess the generative mechanisms within certain situational contexts, thus bringing the philosophy of critical realism in research practice.

At this point I will describe briefly how my intellectual interest in the prevention of obesity developed. I was invited by the European Office of the World Health Organisation to do a systematic review of the literature on interventions to prevent obesity. Despite the evidence in the medical literature about the effectiveness of interventions, I was disappointed to discover that there was little evidence in the medical/public health literature on how and why interventions to prevent obesity really work.

Carrying out this research also made me think about the nature of prevention in general. The area of obesity prevention, as is also the case with preventing other illnesses, is complex, because it relates to some fundamental difficulties. The most obvious difficulty, which motivated this piece of research, is the invisibility of its success (Fineberg 2013). Disease prevention/health promotion attempts to prevent a disease from happening, thus creating an 'absence of events' (Fineberg 2013). In that respect, the act of evaluating preventive interventions is about assessing what didn't happen. Thus, one conclusion I drew is that the interventions for the prevention of obesity, act by helping people to not gain weight, which is an invisible benefit.

Another important issue that intrigued me is the nature of obesity for society in general. As I came to understand by reading the medical literature, obesity is mainly regarded as a medical issue with huge public health dimensions. The blame is mainly on the individual due to the individual's failure to eat healthily and maintain satisfactory physical activity levels. The increasing prevalence of obesity in both the developed and developing world

is presented as the result of the collective inability of individuals to balance input and output of calories. The burden of obesity appears vast due to the cost of comorbidities, such as cardiovascular disease or diabetes (Fry and Finley 2005). However, this stance fails to take into account that obesity is above all a social issue and not a matter of individual responsibility to balance personal weight. The structural conditions which are the driving forces that create obesity appear to be extremely powerful. A variety of economic, political, cultural and social reasons are operating and shaping the way people live, move (or not move), produce, trade and eat; and they constitute, as normative practice, to the overconsumption of food and lack of physical activity. According to a growing body of research, obesity is the outcome of 'obesogenic' environments (Swinburn, Egger, & Raza 1999) and of a food system geared to profit (Nestle 2002) and efficiency rather than health (Lang, Barling, & Caraher 2009).

In that sense, it is not that people are unaware of what to do to avoid obesity but rather that the structural conditions which shape their habits are extremely powerful. This is an observation I often made myself from my conversations with people about weight and exercise. Their narrative entailed guilt about the physical activity that people know they do not practice and the healthy food that people know they do not eat. Further, when these two do happen, it is for a short while; rarely do they become regular, standardized habits, integrated in their daily life. Thus, people understand what is necessary to do in order to maintain a healthy lifestyle but what appears to be happening is that they feel unable to cope with the drivers of obesity.

The framing that dominates the way obesity is regarded by society is typical of the responses which view obesity as a medical problem dependent on individual choice (in simple words: people get fat because they are lazy and eat too much) (Lawrence 2004). If obesity was to be regarded as a social problem with more complex drivers than the obvious biological imbalance between the foods consumed and the energy spent, then a holistic strategy would most probably exist, with population interventions dealing with the upstream drivers of obesity, addressing the way human activity is structured. This inability to frame obesity as a social issue which is influenced by a variety of structural societal factors appears to be a plausible reason why, despite the determination of society through various organisations, governments and other national or communal bodies to implement strategies for tackling obesity, there are not many interventions which appear to be effective against obesity.

However, despite those shortcomings in the literature about interventions which prevent obesity, there are examples of interventions which appeared to be effective. Drawing from this inner motivation to find what would help or enable people to adopt healthier lifestyles, I tried to understand what kind of interventions are effective in helping people prevent obesity and what can be understood about those interventions.

According to the latest report on obesity by the World Health Organization (2007), action against obesity should consist of microscale interventions supported by macro-scale interventions. Thus, interventions in different settings such as communities, schools or workplaces should be complemented with national and international policies. Some examples of

such policies are food labelling, economic instruments that support consumption of fruits and vegetables, fat taxes to restrict consumption of sugary and rich-in-saturated-fat foods and restrictions in direct marketing to children.

However, the interest of this research is not to understand how such overall structural interventions at the policy level operate. The focus of this thesis is to understand how particular effective interventions act at a community level and manage to enable individuals to embed change in their daily practice. The element of the question 'how do they act' is not a matter of an intervention's operation in terms of process or management (although such conclusions will be identified), but rather how they produce their effects and manage to make a difference in people's lives such as to not gain weight in an environment where promotion of food overconsumption is often a normative pattern (Chaput et al. 2011).

Community interventions act at the core of everyday life, where hundreds of choices are made by people as they go about their daily living – often not thinking about 'health' at all. Such interventions could enable people to make changes in their daily practices, thus enabling changes which could be sustained over time and become routinized and normative. To me they appeared sustainable as a concept of prevention, in the sense that they could continue having an effect on people's everyday lives when the intervention eventually stops. Thus, interventions at a community level could be a potential category of interventions which can influence food behaviour towards healthier patterns and altogether promote ways of living, which lead to better rather than worse health in the shorter and longer term.

However, the challenge was to find an evaluation methodology which would enable an understanding of public health interventions that are situated in the real social world. A framework of thinking was needed, that would facilitate the provision of explanations about the components of operation of these interventions, which are coherent and take into consideration the complexity of social life and the complexity of factors influencing social life. Viewing those interventions which aim at the prevention of obesity through the lens of social sciences appeared an exciting prospect.

I chose the theoretical framework of critical realism and the principles of realistic evaluation, because I felt that its conceptualisation of reality was ideal as a means of making sense of how and why interventions work to prevent obesity in communities – in other words, what it is about how the interventions are conceived, constructed and implemented and within what framework of thinking and practice, that enables them to have the effects that they do. This means that the content of the intervention was not the main focus. Instead the focus was on how each intervention worked.

The structure of this thesis is as follows: the next chapter is about the intellectual background of this research, reviewing some of the literature on obesity, critical realism and realistic evaluation. It is followed by a methodology chapter, which also describes how I conducted a systematic literature review of all interventions that prevent obesity in European countries in order to pick up the proper case studies for realistic evaluation in a systematic and structured way. An in-depth, semi-structured interview topic guide was developed based on my understanding of the key concepts of critical realism and realistic evaluation. The topic guide was tested by the help

of a pilot study. The three selected cases study interventions and their analyses are presented in three separate chapters. Finally, the last chapter discusses the learning from the analysis across the three interventions, the overall learning gained from applying the critical realism framework of thinking and reflects on its links to more abstract social phenomena.

Chapter 2: Literature review

This literature review will engage with a) obesity, what it is, how it is measured and why it has been the focus, from whom and for what reasons, b) the social critiques of medicalised approaches, and c) the approaches to evaluating interventions to prevent obesity.

Introduction to obesity

From the biomedical perspective obesity is a situation of the body, which is characterised by excess weight. In the medical world it is recognised and classified as a disease (E65-66) according to the International Classification of Diseases ICD-10 System (World Health Organization 2007). There are many ways to measure obesity but the most globally accepted and commonly-used index for the measurement of obesity is considered to be the Body Mass Index (BMI) or Quetelet's Index: it is calculated by the body weight in kilograms divided by the square of height in metres – kg/m2, with a cut-off point of BMI ≥ 25 for being overweight and a BMI ≥ 30 for obesity. Overweight or pre-obese is classified as the stage of BMI ≥ 25.00 – 29.99 (World Health Organization 1998). In line with a biological explanation, obesity can be caused by diet, physical activity and the unequal relationship between them. Thus, individuals become overweight or obese when their caloric intake outnumbers the energy expenditure through the daily physical activity.

Obesity is seen by society as a serious matter and has become a headline issue in Europe, as well as globally. A reason for this is said to be the high rates in obesity prevalence which are reported during the last decade to exist both in developed and more recently in developing countries. This has

led to the recognition of obesity by the biomedical establishment as a major issue for public health. The term ‘obesity epidemic’ very often appears in the way the medical and public health establishment elaborate the growing size of obesity prevalence (World Health Organization 2000).

Obesity is widely accepted by the general public, the policy makers and the media, as a problem that needs to be addressed. Therefore there are many attempts globally to reduce obesity through treatment but also to find effective preventive measures that will help people avoid the situation of obesity in the first place.

The public health dimension of obesity

The contemporary thinking on the dimensions of obesity is mainly framed from the perspective of the biomedical establishment, which claims that obesity affects a rapidly increasing portion of the European population (Berghoefer et al. 2008). These statements result from studies from leading health organisations, biomedical faculties in universities and other health institutions, such as the World Health Organisation, which claims that in 2008 half a billion people worldwide were obese (WHO 2013). It is indeed very common to see that many authors of epidemiological studies widely cite such data, particularly the World Health Organisation, since it is widely considered as one of the most authoritative sources of data concerning public health (Sacks et al. 2008; Kelly et al. 2008; James 2008a; Wang & Lim 2012). The WHO report (2007), which is an influential source of data, presents a compilation of samples from different countries in the WHO European region. However when looking at this compilation more closely one can see that it is based on national surveys conducted according to different methodologies

and practices. Nevertheless, the WHO is using them in order to demonstrate that at a European level obesity affects a percentage which ranges from 5-23% of men and up to 35% of women. A third up to almost three quarters of the European adult population (26–68%) is claimed to be overweight (WHO 2007).

The public health and medical establishment appear to be particularly persuaded that obesity is a serious matter for public health because, as a risk factor for chronic diseases worldwide that is producing a burden of morbidity and mortality, it consequently poses a considerable financial strain on national health systems. Fletcher (2012) was justified to support that the rising healthcare expenditure allocated to treat the comorbidities of obesity was also one important part of the argument which led to framing obesity as an important public health issue. Thus, there is extensive interest from the public health establishment in both the form of producing research and evidence, as well as applying the research in interventions to prevent and treat obesity.

This extensive interest has led to the popularity of obesity as a headline issue and to its acceptance by public opinion. The term ‘obesity epidemic’ appears very often in the way the medical and public health establishment elaborate the growing size of obesity prevalence (World Health Organization 2000) and currently the usage of the term ‘epidemic’ appears to be widely adopted by both the public health establishment as well as the public opinion.

A further argument used by public health officials and academics in order to persuade the public opinion about the seriousness of the problem is the need to protect children from obesity. The arguments used are that obese

children will eventually become obese adults, fuelling the epidemic furtherand that in light of a human rights justification, there is a need to protect children who are living with their parents' choices (Lobstein 2006).

In relation to measuring and defining obesity, as mentioned above, BMI and its cut-offs are widely accepted as a measurement method, though there are other methods to measure obesity as well. These methods, which include skin fold thickness, waist circumference or waist-to-hip ratio, are direct ways which directly apply measurements on the human body, whereas the BMI index is measured computationally. BMI is a generic type of measurement which does not take into account sex, racial differences or differences in body compositions (Snehalath 2003). In that respect, the male and female body are measured based on a common metric which apparently does not differentiate between the two genders and initially was developed on the norms of the male body. Thus, the BMI index fails to incorporate physiological aspects such as the normal loss of muscle mass as an individual gets older or in contrast the increased muscle percentage in some athletes who are often classified as overweight or obese (Baumgartner, Heymsfield, & Roche 1995); (Kok, Seidell, & Meinders 2004).

Furthermore, the BMI index is often used to quantify the risk from increased body mass and to correlate it with morbidity and mortality caused by certain diseases (James 2008b). Many epidemiological studies are used as evidence in order to establish the relationship between an increased BMI and the onset of a cluster of diseases, known as non-communicable or chronic diseases (Pi-Sunyer 1993). According to this medical literature the most common diseases attributed to obesity are: type 2 diabetes (Aucott

2008); (Waring et al. 2010), cardiovascular disease, including stroke (Bogers et al. 2007); (Field et al. 2001); hypertension (Nguyen et al. 2008); osteoarthritis or other disturbances of the muscular skeletal system (Gabay et al. 2008); (Terlain et al. 2006); certain forms of cancer, (Renehan, Frystyk, & Flyvbjerg 2006) such as colon, bowel, pancreas, prostate; (Giovannucci & Michaud 2007), breast and endometrial cancer (Alokail et al. 2009; Marchant 1982; Xue & Michels 2007), gall bladder disease, disorders of the reproductive system and fertility issues (Vrbikova & Hainer 2009).

The whole quantification of risk from obesity through BMI has been the result of the work of public health institutes, such as the International Obesity Task Force, that contributed to the WHO report published in 1998 which revised and set the cut-off points for being overweight from 27 to 25 (WHO 1998). From a technical point of view, in her analysis of the history of BMI's birth, Fletcher (2014) showcased how the definition of the limits of cut-off points has been the result of compiling huge data-sets which monitored and tracked the population level changes in the distribution of weights globally. Apparently the changes of the cut-offs from 27 down to 25 put the world onto the path of the obesity epidemic.

It is obvious that the interest of the medical world to the cut-offs is due to its relationship with changes in morbidity and mortality. However, even in the medical literature there is little consensus at which cut-off points the relationship between BMI and change in morbidity and mortality risk is becoming clear (Department of Health 2006). On the other hand, studies from the medical field have shown that a higher BMI in older people for instance is

probably beneficial and protective by decreasing morbidity and mortality risk (Price et al. 2006; Thinggaard et al. 2010).

As a result, the cut–off points were revised downwards and criticized by public opinion (Economist 2003), especially by a certain part of the academic world (Campos 2004; Aphramor 2008). The main argument of these voices was that this movement suddenly sent millions of people into the category of being overweight. The obvious result of this classification was that it created the obligation for treatment of the excess weight condition and this turned to the benefit of the giant diet and slimming industry (Peretti 2013). Thus, they claimed that this so-called 'globesity' provoked a sudden moral panic which was imposed on society by changing the cut-off points and the rapid framing of millions of people as 'overweight'. Similarly controversial have been further claims of the 2002 World Health Report, which stated that a BMI of 21 (SD: 20-23) kg/m^2 is the theoretical minimum exposure risk of disease attributed to obesity (World Health Organization 2002).

Thus, although the BMI has a relevant value to monitor and predict the increase in the general population's weight, it is doubtful if the usage of BMI is more negative than positive for society in light of the obsession and the 'moral panic' with weight control. In that sense, the overall effectiveness of the BMI's usage as an intended tool of monitoring the weights of populations appears questionable.

Continuing the review on the literature around obesity, I will refer to another reason why the public health and medical establishment are persuaded that obesity is a serious matter for public health and society in general. The increased morbidity and mortality attributed to obesity is

suggested to produce a chain of economic consequences both on the level of the affected individual and its family, as well as on the level of the society overall. The repeated use of health care services creates high expenditure and reduced productivity due to absence from work owing to frequent doctor visits and disease recovery. On a macro level, the overwhelming health care costs, attributed to an increasing prevalence of obesity and its related co-morbidities along with the collective productivity losses, which are quoted to impose a burden on the national economies and absorb resources from the overstrained health systems (House of Commons Health Committee 2004; National Audit Office 2001; Visscher & Seidell 2001). This evidence is provided by the so-called cost-of-illness studies which are estimating the expenditure of health care for a cluster of diseases that are modelled to be attributed to obesity. These estimates are calculated according to a variety of economic methodologies taking into account different clusters of diseases or different types of costs, such as hospital care, pharmaceutical expenditure or indirect costs from productivity losses. As a result the cost-of-illness literature, in its effort to quantify the cost of obesity in monetary terms, provides various estimations that even for the same country vary according to the authors chosen. Thus some studies say that in the UK, morbidity from obesity and being overweight cost the NHS £3.2 billion in 2002 (Allender & Rayner 2007) and in the Netherlands €1.2 billion in 2003 (Van Baal P.H.M. et al. 2006). In Belgium, obesity costs in 1999 reached €0.7 billion (Institut Belge de l'Economie de la Santé 2000), in France in 1992 €2.1-6.2 billion (Emery et al. 2007) and in Germany in 2001 €1.3-2.7 billion (Schmid et al. 2005). Finally,

another study estimated the direct and indirect costs of obesity in 2002 for the 15 EU member countries to €33 billion (Fry & Finley 2005).

In conclusion, obesity has been in the focus of the public health and medical establishment and has been recognised as a significant challenge for the health of populations, from studies such as the Wanless report (Wanless 2004). Furthermore, by using the proposition of the increased cost of obesity for the national health systems, the public health establishment tries to showcase the importance of obesity and persuade policy makers and governments to take action to prevent obesity.

Sociological dimension of obesity

The reason why individuals put on weight has been the focus of epidemiological, medical and sociological research. However, it is very common to see that the dominating framework of explanation on what causes obesity is mainly associated with food intake and the failure of the individual to control its appetite (Dorfman & Wallack 2007). However, it is plausible to think that it cannot be that suddenly people have lost their ability to control their appetites. The collective rise in people's body weight provokes thoughts that a plethora of other not so apparent and recognisable causes, operate in the contemporary environment which 'feeds' the obvious imbalance in the energy expenditure and is driving people to put on weight. Even the public health literature acknowledges that the biomedical framework which explains obesity according to the biological imbalance in the energy input and output is not sufficient (Government Office for Science 2007). Thus there is a particular effort within the public health literature to provide a more coherent explanation

in relation to why people are becoming obese and which segments of the population are particularly affected by obesity.

It is often suggested that the social position of people seems to equip them differently in relation to the 'obesogenic' challenges of the environment in which they live, leading them to making different choices from the womb until the end of life. Inequalities in health, in general, are a widespread phenomenon (Marmot 2004) on which there is a good deal of evidence that human health follows a social gradient and as such, people get more sick or die prematurely the lower they are in the social ladder (Bartley 2004;Marmot & Wilkinson 2006). In the literature about inequalities in health, there is particular interest to clearly define the socioeconomic position of people and for that reason, different measures are in use with different attributes and a different power to predict one's social standing. The socioeconomic position can be defined and measured according to people's education, income or assets and employment status (Marmot & Wilkinson 2006). The matter of demonstrating the relationship of low socioeconomic status, as this is defined according to various indicators and the manifestation of obesity has been in the research agenda. Apart from the complex question of how low socioeconomic status is a determinant of obesity, the research has sought to demonstrate other associations such as how people are affected by obesity in terms of gender and age (Wang & Beydoun 2007).

It is suggested that a low socioeconomic status affects women more than men (Sobal & Stunkard 1989, McLaren 2007). In 2007 a report commissioned by the European Commission (Robertson, Lobstein, & Knai 2007) consisted of a systematic analysis of the literature and claimed to

confirm this relationship and also found how much of the obesity found in the two genders is related to inequalities. The report suggested that inequalities in socio-economic status (SES) are causally related with 20-25% of the total obesity found among men in the 13 Member States, while for women this percentage rises to 40-50%. The same report, by matching social inequalities through countries, also identified that a higher level of social inequalities within a country links with higher levels of obesity in the population; with this connection being stronger among children and adolescents.

A common research question in obesity literature has been in relation to the effect of parents' socioeconomic status on the risk of their offspring becoming obese later in life and this question has been investigated with various study designs. In order to answer this question, one study used a British cohort from birth and at the age of 23, in order to claim that the social class of participants during childhood had an effect on adult Body Mass Index (BMI), with the increase in BMI being greater in those belonging to the manual social class, as defined from the father's occupation, in comparison to those from the non-manual social class (Hardy, Wadsworth, & Kuh 2000). Another study used the design of a longitudinal study for a British cohort, which was followed for 33 years in order to demonstrate that the stage of infancy until seven years old was crucial for the risk of developing obesity as an adult (Power, Manor, & Matthews 2003). Other types of studies which used a different method such as population-based surveys in Britain, Denmark, Finland, the Netherlands, Sweden and the USA, appeared to also confirm that low socioeconomic level of parents affects the appearance of obesity in their offspring and that this link is stronger for women (Power et al. 2005).

After examining sociological categories such as gender or age or class, which are broader social phenomena, I would like to briefly consider the literature related to the concept of weight and the public ideologies and common beliefs about the way they have been shaped through the years; what the concept of weight is and how society's perception around slimness and obesity has evolved in the last years.

Social developments happened which changed the image of body weight over the course of the last century. It is more than just a mere expression of individual food consumption patterns; body weight has also acquired a social meaning. Centuries ago, when food was not a commodity and daily living required high levels of physical activity, those who enjoyed a good standard of living and had abundant food also had high levels of body fat (Brown & Konner 1987). Large figures were manifestations of a privileged social position and 'fatness' was highly regarded. Cahnman observes:

> *'Societies where the majority of the population lives on the edge of starvation differ from those, like our own, where comfortable living standards are shared by many. Where affluence is attainable only by a privileged few, obesity, especially in women, is likely to be regarded as prestigious and therefore attractive.' (Cahnman 1968: 287)*

What followed was the Industrial Revolution which gradually changed the production of food in Europe (Overton 1996), so food started becoming abundant and available to more people. These two developments probably relate with the later increasing value of the slim body over the fat body, which

according to the analysis of Levenstein (1988) about American society, appeared by the 1920s. In the next decades, the fat body was conceptualised as a ‘defect’ and fat people were perceived as ‘gluttonous’ and powerless to control themselves, according to Cahnman (1968) who analysed how fat people were stigmatised based on moralistic assumptions. Fatness was perceived as negative and bad before the era where it turned out to be a medical situation. Sobal & Stunkard (1989) put the start of the ‘medicalisation era’ somewhere in the 1950s. In sociological terms, obesity is thus regarded as a phenomenon of increased agency in which individuals are responsible for getting fat due to their inability to control their food intake, or due to their sedentary habits. This perspective is also partly evident in the contemporary years and the way the biomedical and public health establishment elaborates the phenomenon of obesity and the reasons for its high prevalence (Dorfman & Wallack 2007).

However people do not live in isolation and what they eat, how they eat, if they exercise and how much, is not only a matter of personal choice but it is framed in a collective way by the given social structures, although not all people are influenced to the same degree by these social structures. Structural conditions shape and influence the way people live, move, eat and work. If we accept obesity as a problem for society, then the conceptualisation of Lang and Rayner appears very informative. The authors regard obesity as the manifestation of inappropriate societal structures framing what people eat (Lang & Rayner 2007). In the public health literature this is characterised according to the term used by Swinburn, Egger, & Raza (1999) as the ‘obesogenic’ environment (World Health Organization 2007; Government

Office for Science 2007) and denotes the reality that the particular way modern life is structured drives people to become obese.

In that sense, the phenomenon of obesity could be understood with the help of a framework of thinking, that could offer insight into the interplay between structure and agency and to which degree the imposed structure surpasses or enables people's agency.

Social critiques on obesity

As will be shown below, the mere existence of a new literature which critiques the obesity 'epidemic' reflects that the contemporary focus of public health and the medical establishment has placed too much emphasis and even developed an obsession with weight control. For instance, there is rich literature in relation to gender issues and how this weight obsession targeted and victimised women. The preoccupation of society to cultivate the archetype of a slim and thus beautiful female body among women has been criticised by feminists (Orbach 1978).

Apart from the question of slimness in relation to beauty and the relevant feminist critique, the main interest of this research is about the potential connection of the fat body with health or better, with the absence of health. Is being 'fat' or 'obese' in principle really so bad and causally related to being ill? This assumption is obvious in the preoccupation of contemporary society with weight, the way it encourages the obsession to measure weight and the public opinion which reinforces only the model of the slim body. As a result the idea is widely enforced that fat is generally bad and thus there is pressure on people to control their weight. This tendency has given rise to movements which are calling for 'healthier' attitudes towards the human body

in general and food. Sobal (1995) typifies these movements as an effort to 'demedicalise' obesity. Bacon, in the States, and Aphramor in Europe (2008), as the initiators of the 'Health at every size' philosophy, endorse in their approach a healthy relationship with food, by calling attention to healthy nutrition, active living and body satisfaction. This movement furthermore rejects the causal link of weight loss and improved mortality or morbidity rates. Bacon and Aphramor (2011) demonstrate quite successfully how pressure from the medical field to control one's weight is creating stigma, guilt and a distorted relation with oneself and with food as a means of cultural interaction. The obsession with viewing food as solely an intake of calories, which have to be as few as possible, can be a possible cause for the distorted relation with food that an increasing part of the population appears to have, given the way this phenomenon is manifested with the increasing number of people affected by appetite disorders and weight cycling. At this point, the weakness of public health literature is related to its failure to recognise how food is part of people's culture, which employs the assumptions, behaviours and meanings people share when they eat, as well as the social interaction that is experienced in daily food behaviour (Lang, Barling, & Caraher 2009).

I would propose that the widespread usage and public acceptance of the term 'obesity epidemic' is the reason driving the growth of a literature in the last years, which argues that obesity represents a situation of 'moral panic' (Campos 2004; Campos et al. 2006; Saguy & Almeling 2010; Saguy & Riley 2005). The main argument from the side of public health literature in order to justify the metaphorical usage of the term 'obesity epidemic' is the need to raise awareness and protect children from direct-to-children

marketing of a food industry that tries to create faithful consumers from a young age (Nestle 2002). Apart from that, children need to be protected because they live in an adult-framed context with adult-framed choices (Lang & Rayner 2007). Nevertheless, according to this social literature, it is argued that the overall message about obesity, as this is circulated by the mass media, is 'moralising' and creates 'moral panic' (Campos, Saguy, Ernsberger, Oliver, & Gaesser 2006; Saguy & Almeling 2010; Saguy & Riley 2005).

The advocates of this literature point out that the debate lies at first in the statistics about the prevalence of obesity (Campos, Saguy, Ernsberger, Oliver, & Gaesser 2006). The basic argument of Campos is that what countries experience is not an exponential pattern but only subtle shifts of weight gain and that only among the heaviest individuals is the weight gain significant; consequently the term 'epidemic' is argued to be unjustified (Campos, Saguy, Ernsberger, Oliver, & Gaesser 2006; Campos 2004). This argument appears not particularly sound and strong, opposite to the public health argument of the increasing prevalence of obesity. Thus, what is quite justified to be argued from the public health establishment in response to the positions of Campos is that these 'subtle' movements of people's weight distributions equate to high percentages of people to be moved into a higher range of BMI along the distribution curve. This results in the increasing prevalence of obesity rates over the years (Kim & Popkin 2006).

In conclusion, the existence of this literature points to the exaggerations of the medical and public health establishment and to the fact that society should not be obsessed with weight control. However obesity remains a social issue with social, health and economic implications and the

present discourse accepts that obesity is something bad for society. In light of the current developments on the physical environment and given the need for a more ecological view on the way contemporary society is using natural resources, it appears that being obese implies a person who is irresponsible to the physical environment as well. If an obese person is not considering preserving his/her health and furthermore is consuming more than less, then subsequently this individual spends valuable resources and adds more burdens on the physical environment. Such ideas are emerging from the paradigm of the 'travelling citizen' who is considering the health of the planet and does not use motorised means of transport (Green 2012). The concept of a responsibility to the planet and the need to protect its resources and be liable for the way we live and leave our footprints, appears to be in contrast to the idea of being obese. Thus the need to protect our planet appears to emerge as a concept that creates a social reason for being non-obese and healthy.

Responses to prevention of obesity

There have been a number of responses worldwide for the prevention of obesity based on the high-risk group approach, but also on the population level. Despite the fact that a detailed discussion of this extensive literature is not relevant to my research, it is however useful to summarise briefly the nature of this response.

Generally, in the nature of this response, Rose (2008) suggested that in order for preventive strategies to be effective, they have to address all the population distribution so that everybody benefits and not just the high-risk

individuals. Many efforts have concentrated on shifting the population mean BMI downwards by promoting exercise and healthy weight initiatives.

The need to tackle obesity with multi-sectored interventions, ranging from individual, local-group and community-based initiatives, to regional, national and international policies (World Health Organization 2007), was firstly adopted as an approach in the Ottawa Charter for Health Promotion that stated:

> *'Health promotion policy combines diverse but complementary approaches including legislation, fiscal measures, taxation and organizsational change. It is coordinated action that leads to health, income and social policies that foster greater equity' (World Health Organization 1986: 2)*

Similarly, in 2004 the WHO Global Strategy on Diet, Physical Activity and Health more specifically highlighted the need for health ministries to coordinate action from a broad spectrum of stakeholders, such as ministries and agencies, institutions and private bodies and for several decades, in order to promote healthy diets and raise physical activity levels (World Health Organization 2004). In light of acting against obesity, the European Commission (EC) has responded with commitments to restrict snack advertising and marketing (Chryssochoidis 2008), provide information on nutritional values of food products, improve labelling on healthy food choices and foster reformulation programs mostly targeted at the reduction of salt, fats and sugars (Webster 2008). The industry has responded with healthier food lines (Verduin, Agarwal, & Waltman 2005) and functional products (Wicklund

& Thormodsdotti 2009). Finally, there is a wide range of interventions/projects (World Health Organization 2007; Doak et al. 2006; Flodmark, Marcus, & Britton 2006; Flynn et al. 2006; Summerbell et al. 2005; van den Berg, Schoones, & Vlieland 2007) at a national and local level in different settings, such as schools, communities and workplaces, aiming to prevent or treat obesity in various ways, such as interventions in the built environment; interventions for improving access to healthy food, promotion of educational material and health campaigns.

Despite these efforts, it is accepted that the necessary degree of public health mobilisation has not yet reached levels that are able to curb obesity prevalence. According to the Foresight report:

> *'… Currently no country in the world has a comprehensive, long-term strategy to deal with the challenges posed by obesity. There is an urgent need for action to halt the rapid current increase and to develop a sustainable response…' (Government Office for Science 2007: 5)*

For this reason the Foresight Report pointed out the urgent need to develop sustainable strategies to prevent the rise in obesity levels in the near future.

Analysis of the 'Obesity System Influence Diagram' and the rationale for its use for the selection of the case studies

There is a lot of effort in the literature to indicate what drives obesity and what the causes of this phenomenon are. The Foresight report (UK Government Office for Science 2007) is one of the most recent efforts to

depict the obesity determinants. The so-called ‘Obesity Systems Influence Diagram’ is a visual demonstration of the determinants of obesity along with its interdependencies. In this diagram, the determinants of obesity are organised around seven key thematic clusters, which are: individual psychology, social psychology, individual physical activity, physical activity environment, food consumption, food production and physiology clusters. The energy balance equation of energy intake and energy expenditure (UK Government Office for Science 2007) is situated in the heart of this system. . The system’s attempt to depict the extensive areas of social life that the determinants of obesity cover appears as the most comprehensive in the literature. For this reason, the ‘Obesity Systems Influence Diagram’ of the Foresight Report was used as a framework for the process of selecting the interventions used as case studies to this research. This diagram was deemed as the suitable tool to select the appropriate case study interventions because it appears compatible with the conceptual approach of this research. This diagram includes the continuous interplay of the social structures, which enable or constrain the human agency which in turn can find ways to transform and change these social structures, as will be analysed in the next section. The seven key thematic clusters represent both human agency such as individual psychology, or individual physical activity, and foremost the core of this diagram which is human biology. The other key thematic clusters such as the physical activity environment, food consumption or production represent the factors which constitute the social structures that are also themselves produced from human activity, as it is going to be analysed in the next section about critical realism.

Despite the fact that this systematic diagram was chosen to be the basis for the selection of the case studies of this research, a critique on the hidden assumptions of this system appears necessary in order to be aware of its potential limitations.

Firstly, the heart of the 'Obesity Systems Influence Diagram' is the energy balance equation. This fact appears to include as inherent, the assumption that something has gone wrong with the human body and that it is the reason for the imbalance between energy consumed and energy received. In addition, how is the energy imbalance defined or measured? Thus, it does refer implicitly to the BMI classification in order to define the imbalance. However, does every amount of imbalance carry the same 'badness'? The energy imbalance assumption even misses the self-evident truth that a person's weight is not a stable variable through one's life, but even changes according to the season, manifesting the biologically normal function of the body to adapt to different temperatures. The problem in the way the BMI is applied is its mechanistic classification of all body sizes and potentially of health. Assuming that the epidemiological association between increased weight and prevalence of a pool of diseases are facts, in the same way that the epidemiological association between lung cancer and smoking is a fact, one should bear in mind that it remains a mere statistical association of increased risk and not a certainty. In other words, the statistics should not imply that every deviation from the classification is related to disease and overweight prevalence or obese individuals are potentially ill people.

Another point in this depiction is that by placing the energy imbalance as central to the problem of obesity, a prioritisation is clearly suggested in an

approach which could be labelled as a biological deterministic approach. In this sense the Foresight Report appears to place less emphasis on the obesity discourse as a social phenomenon and more on obesity as a biological situation of the human body. Moreover, many important stances in the obesity discourse are understated in this depiction, such as the existence of an increasingly dominant fat studies movement, which aims to have a say in the dialogue around fatness and health and the complicated politics in this relationship. Similarly, little emphasis is placed on the ethics of food, the concept of the 'ethical foodscape' as suggested by Goodman, Maye, & Holloway (2010). They note that apart from the narrow polarisation of food into 'bad' food and 'good' food, there is an area which prompts more theorisation and has to do with the context and criteria which define bad and good food and the ethics involved in the production and consumption of food in relation to societies, humans, animals and environments. The 'ethical foodscape' notion is in line with a wider consideration and dialectical approach to the whole economy, culture and ecology as advised by Guthman & DuPuis (2011) and in line with the notion of the 'travelling citizen' (Green 2012), which was examined in the previous section.

Despite its methodological and conceptual shortcomings, the 'Obesity Systems Influence Diagram' of the Foresight Report remains the most comprehensive effort in depicting the complex nature of obesity determinants. Most importantly, it is compatible with the aim which is adopted in this research that seeks to examine the interplay between social structures and agency. Thus this critique was not aimed at reducing its value but had the aim to refer to the points which are not relevant to this stance. For this reason the

diagram of the Foresight Report constitutes the basis of selecting the case studies of this research.

Review of the literature of critical realism and realistic evaluation

The following section will examine some of the literature on the philosophy of critical realism - used as the theoretical framework of this study - and realistic evaluation, which applies the principles of critical realism in evaluation methodology.

Critical realism

Critical realism is a tradition in the philosophy of natural and social sciences mainly associated with the work of British philosopher Roy Bhaskar, who described transcendental realism in his first book, in its original publication in 1975, '*A realist theory of science*', as a philosophical reaction to the positivist notions in natural sciences (Bhaskar 2008). Later on, in his book '*The possibility of naturalism*' (Bhaskar 1979) he revived the debates on the possibility of objectivity in social sciences (Carter 2000). Bhaskar epistemologically believes that *'social sciences can be "sciences" in exactly the same sense as natural ones, but in ways which are as different (and specific) as their objects'* (Bhaskar 1998a: xvii).

Critical realism is a philosophy that epistemologically distinguishes itself from both the positivist canon, which accepts that natural sciences can be used to study the social world, as well as from the hermeneutical position that human sciences are radically different from natural sciences. Critical realism doesn't seek to reconcile the two but holds that knowledge, as a social product like any other, is not independent of the people who produce it

and is subject to change according to the skills and standards of the producer, but on the other hand, knowledge is of things, such as a natural element's gravity, and it doesn't depend on human activity (Bhaskar 1998b).

In general, for Bhaskar, the ontological distinction between causal laws and patterns of events is important. Causal laws exist without human activity, whereas in general, patterns of events, the same as with experiences, are produced from humans. Ontologically, one of the central points in critical realism is the view that reality is constructed from generative mechanisms that produce events. Generative mechanisms are in a sense the way things act in the world and they do this autonomously of humans (Bhaskar 2008). Ontologically, causality in a realist explanation is established not on the basis of associations but goes beyond and behind them, to the social structures that generate them (Carter & New 2004).

Bhaskar is neither constructionist nor objectivist in his view of society. He regards society as *'both the current situation, as well as the constantly reproduced outcome of human agency'* (Bhaskar 1998c: 215). According to Bhaskar there are three domains: the 'real', the 'actual' and the 'empirical' (Bhaskar & Lawson 1998). Mechanisms produce real social phenomena that become apparent only through their effects and what critical realism can contribute is to construct hypotheses empirically about such mechanisms and try to find out their effects. Critical realism is ontologically consistent because it views society as both the ever-present condition as well as the continually reproduced outcome of human agency (Bhaskar 2009). Although people do not create society, because it existed before them, they unconsciously reproduce and transform the structures and practices; otherwise, without

human activity society could not be. In that sense, critical realism is far distant from the ideas of objectivism. According to objectivism, structure confronts agency as an external situation. It also differentiates from post-modernism and social constructionism, which asserts that what the researcher presents is her/his version/construction of social reality. Critical realism in opposition holds that the researcher can gain knowledge of the reality, which exists regardless of people's representations of it (Cruickshank 2003). As suggested below:

> *'The realist social scientist, however, is likely to claim that social entities (such as markets, class relations, gender relations, social rules, social customs or discourses, and so on) exist independently of our investigations of them' (Ackroyd & Fleetwood 2000: 6)*

Thus, an important dimension in critical realism is that it offers the prospect, apart from the understanding, of changing our social world through uncovering the effects of generative mechanisms; according to Bryman (2004) this aspect makes, critical realism 'critical'.

The critical realism approach has a relatively small application in the field of health and public policy. Connelly (2001) is an advocate of critical realism as the most effective theory because it helps in answering crucial questions for health promotion

> *'The principal research questions for critical realism, social science and specifically for health promotion are the identification and elucidation of the nature of generative mechanisms: How do they*

cause their effects? What triggers them? What inhibits them? How are they reproduced and maintained? Are they politically and ethically legitimate? If not, how can they be changed?' (Connelly 2001: 116)

The philosophy of critical realism has been used to approach and challenge issues such as race (Carter 2000), economic science (Lawson 1998), political economy (Patomäki 2003), management (Ackroyd & Fleetwood 2000; Fleetwood 2005) and evaluation research (Kazi 2003b). Pawson (2002) and Pawson & Tilley (1997) consider the realist synthesis in the conduct of systematic reviews in the domains of evidence-based policy and program evaluation.

Realistic evaluation

Pawson & Tilley (1997) point to the fact that realism has won an important position in modern philosophy and social science but not in evaluation methodology. They have worked substantially on applying a realist approach to policy evaluation and evaluation research and their work 'Realistic Evaluation' is placed as *'a continuation along this road of driving realism into research practice'* (Pawson & Tilley 1997: 56). According to Connelly (2000), Pawson and Tilley have been 'partially successful' to filling the gap between theory and practice by their proposed Context/Mechanism/Outcome configuration as a field method to uncover and assess the generative mechanisms within certain situational contexts. However, as Carter and New suggest below, there is no defined set of instructions on how to work with a realism approach:

'Realism as a current within social science is not, of course, a clearly defined set of prescriptions for doing 'realist work'…There is no 'party line' and, as the reader will discover, the application of realist approaches to areas of social research such as health, notions of probability, chaos theory, racism, socio-linguistics and so on, has dissolved some questions, provided provisional answers to others, and thrown up a host of new ones. And since social realism lays no claim to final answers, this is as it should be.' (Carter & New 2004: 18)

The next section presents how realistic evaluation has been put into practice in various studies in different areas and in particular, in public health.

Review of the literature of realistic evaluation applications

Realistic evaluation according to the doctrine of Pawson & Tilley (1997) has been applied to a variety of fields. Carlsson (2003a; 2003b) advised a realistic evaluation approach to information systems in the framework of Enterprise Resource Planning. In his study, Kazi (2003b), provided three example studies in relation to social work with children and families in England. Douglas, Gray, & Teijlingen (2010) used the realist principles in order to illuminate the context, mechanisms and outcomes of six smoking cessation interventions in Scotland, targeting pregnant women and young people living in deprived areas.

There has been a notable application of realistic evaluation in the fields of public health and health promotion, which informed and methodologically influenced my research.

An example relevant to my research, which I would like to analyse is by Clark et al. (2005) and Clark, MacIntyre, & Cruickshank (2007). They provided a practical guide of how a critical realism approach can be established in order to illuminate the *'complex interplay between individual, program-related socio-cultural and organisational factors that influence health outcomes in open systems'* (Clark, MacIntyre, & Cruickshank 2007: 513) for heart health or cardiac rehabilitation programs. These programs are secondary prevention programs promoting healthy diet and body weight, physical activity, smoking cessation and psychosocial well-being among people with cardiovascular disease. They disagree that human agency is more often linked to *'biology and behavioural change whereas individuals' meanings, experiences and reactions to the programme and the effects of their wider context are simultaneously disregarded'* (Clark, MacIntyre, & Cruickshank 2007: 518). The authors point to the pre-existing organisational, social and cultural contexts, which, quoting Pawson & Tilley (1997), are where programs are grounded. In their evaluation of cardiac rehabilitation programs Clark et al. (2005) were able to answer research questions concerning the effectiveness of the program in addressing certain parameters. Although in this example critical realism was used to evaluate the recipients of the intervention and not the people involved in the organisation of the intervention, the expectations of the authors by using this approach in this type of intervention, appear similar to my expectations. In that sense, prevention of obesity can have an analogous application of critical realism.

Another project is the Workwell project in Sandwell (West Midlands, UK), which is about health promotion in the workplace, specifically in small-

and medium-sized enterprises. The Workwell project aimed to benefit companies by improving access to health opportunities and health information for both employees and employers. Carroll et al. (2005) combined a realistic approach with a theory of change approach, arguing this was possible because they drew on the paradigm of another researcher who established an amalgam of the two theories. Connell and Kubisch specify the *'theory of change approach to comprehensive community initiatives' evaluation as a systematic and cumulative study of the links between activities, outcomes, and contexts of the initiative' (Connell & Kubisch 1998: 2).* They started with the assumption that what works in every health initiative is unique to the context of each company and does not necessarily work for another and the task of the evaluation is to compare diverse Context-Mechanism-Outcome configurations for diverse workplaces, over time. They provide historical and organisational information about the Sandwell context and provide an example of a CMO configuration in a small clothing factory in Smethwick. The intervention consisting of a *'health and safety assessment, a health check and a gentle physical exercise programme'* (Carroll, David, Jacobs, Judge, & Wilkes 2005: 397) was taking place among ethnic minorities with employees suffering from long-term illnesses. The outcomes of the mechanism of the health assessment and health check intervention were compromised by the context of the cultural and social shortcomings. The mechanism of the gentle physical exercise program was disabled by the hesitation and dislike of women workers to exercise together with male colleagues. The resolution of the issues identified by the evaluation groups led to positive outcomes and to the development of a theory of change informed by the lessons of the

evaluations (Carroll, David, Jacobs, Judge, & Wilkes 2005). This project and the understanding of the way it applied realistic evaluation was very interesting for my research because it had some common elements with the BIG project, which focuses on ethnic minorities and their hesitation to exercise in presence of men.

Rycroft-Malone et al. (2010) report on the application of realistic evaluation in protocol-based care (PBC), which is a framework for standardisation of practice in health care. They developed a set of propositions, which were tested by case studies, in particular clinical settings, such as a cardiac surgical unit, a general practice surgery or a birth centre, etc. Their data collection methods included non-participant and participant observation, post-observation interviews, interviews with key stakeholders, reviews of documents and field notes: This process, which included continuous testing and cross-case comparisons, resulted in a set of CMO's for the different health care settings. The general conclusion was that the primary propositions were partially responding to the CMO's that emerged after the analysis of the data. The authors noted the potential of realistic evaluation for developing middle range theories. Finally, the authors concluded that although they were able to finish only one cycle of analysis, they managed to reach an explanatory theory (Rycroft-Malone, Fontenla, Bick, & Seers 2010). In the case of applying realistic evaluation, it was interesting to see the process from developing a set of hypotheses to the development of explanatory theories in relation to the operation of the intervention.

Finally, Connelly (2000) underpins the superiority of critical realism as a conceptual ground for health sector management, which is an area that

does not have a sufficient theoretical framework to face complicated dilemmas related to social life. He proposes critical realism as the best framework of thinking to solve, explain and understand various problems in management. Connelly adopts the realistic evaluation of Pawson & Tilley (1997) and their 'deliberately simple' scheme of a CMO configuration, as the field method to establish a critical realism approach to health sector management. The author does not provide a practical application in contrast with the previous studies but rather, supports the conceptual application of critical realism. The assumptions and expectations from critical realism appear very common to my study.

Critical realism and its theoretical application to the prevention of obesity

In the previous sections the literature on some aspects of obesity and obesity prevention have been reviewed, followed by a review of the literature of critical realism. In the following section, an attempt will be made to view prevention of obesity under the lens of critical realism.

Relationship between agency and structure in the obesity discourse

Margaret Archer is an important realist theorist who among others has contributed to theorising on the relationship between structure and agency, an investigation that according to her, should be given a lot of effort in every research area (Archer 2000). Following her recommendations, I will focus on this relationship in relation to the obesity discourse.

Before going into that, I have referred more than once to agency and structure, but what do we mean by agency and structure? Agency indicates

the power of people as actors in the social world, while the notion of structure denotes the power exerted from social conditions on people (Bryman 2004). The debate in relation to the relationship of the two, always in the heart of any social perspective's endeavour, is central to my realist's discourse on obesity too.

Agency and structure ontologically have *sui generis* properties and powers. A core concept in critical realism is the emergence of both agency and structure and the way the product of two components obtain new properties (Bhaskar 1998c; Carter & New 2004; Danermark et al. 2002). This means that when such systems are developed they establish properties and powers on their own, which are different from the properties and powers of their constituents. That being said, the emergent properties are characterised by their liability to transform the understanding of context, place and time and enforce a new understanding. According to Carter and New:

> *'Emergence refers to the way in which particular combinations of things, processes and practices in social life frequently give rise to new emergent properties. The defining characteristic of emergent properties is their irreducibility. They are more than the sum of their constituents, since they are a product of their combination, and as such are able to modify the world' (Carter & New 2004: 7).*

The various classification systems could be seen as the emergent results of social interactions (Bowker & Star 1999; Carter & New 2004). Phenomena such as the Body Mass Index (BMI), the classification system widely used to classify weight gain, can be seen as emergent outcomes. BMI

as an index acquired distinguished emergent powers once established and incorporated into daily practice to measure and classify human bodies into normal, overweight and obese and potentially non-healthy. As an emergent outcome of the engagement of medical and epidemiological thinking with the recipients of this classification, once established it acquired a new reasoning and new properties. BMI has enforced a certain understanding of context, place and time as a framework, which possesses new enhanced properties which are not the mere sum of constituents that gave birth to such property but are capable of modifying their constituents (Carter & New 2004). BMI classification, seen as an emerged product of social interaction, forms the understanding of people's body size nowadays. The wide adoption of BMI classification by the medical community has brought a new dynamic in the way fatness is measured and as a result, the way fatness is perceived by society. My critique lies in the fact that peoples' bodies can be measured, classified and then labelled in a massive and collective manner as 'normal', 'overweight, or 'obese' and this framework has created a type of control, a structural constraint, over people as agents: *'In so doing, however, they ignore how the body is not only a location for social classifications but is actually generative of social relations and human knowledge'* (Shilling 2003: ix). Food as a social action is reduced to choices that keep the body in appropriate shape and size (Lupton 1996) in order to keep up with the BMI classification. In his book, 'The Body and Social Theory', Shilling (2003) analysed how influential, in Western societies, the view of the body is as a project that can be shaped and constructed according to the hard work devoted by the owner. What Evans (2006) observes in the way recent

national reports view obesity is that in the framework of the 'body project', an obese body automatically, with a mechanistic verdict mediated through BMI, equates to an ill body, a body project that let down its owner going out of control. Therefore, what I see here is the *'temporal priority of structure'* (Carter & New 2004: 6), as Carter names in the first place how social structures seem to be more controlling and prevailing than agency. However, social structures appear to prevail until the point that conscious human activity brings the change (Bhaskar 1998).

The possibility of change

So what is needed to bring about change? At this point, it is relevant to consider the paradoxical development that Shilling is pointing to in relation to the body:

> *'We now have the means to exert an unprecedented degree of control over body, yet we are also giving in an age which has thrown into radical doubt our knowledge of what bodies are and how we should control them' (Shilling 2003: 3)*

It is not difficult to see in Shilling the consciousness and this is the first step – although not a necessary one – for social change. In realist terms, one can say two things: First, in critical realism, it is one thing how things are in reality and another how people perceive them. People may receive false information or have inaccurate knowledge and understanding of the world and the social structures around them, which is the result of previous social interactions, meaning that the world exists autonomously of people's knowledge (Carter & New 2004). Secondly, what I essentially argue here is

that under a critical realist viewpoint, obesity, as a phenomenon, can be changed. Having adopted a critical realism perspective, I have come to believe that the factors which lead to obesity can be altered, in other words a response to obesity is possible. And this is the most exciting thing; the prospect for change can be raised through a critical realist approach. Bhaskar (1988c) notes that social structures depend on the intentional activity of people. People make history (Bhaskar 1998c). This can also be due to the fact that the agency has another power; agency can modify the world not only with one person's self-conscious activity but also through a person's collective activity and this is what is characterised as *'demographic agency'* by Carter & New (2004: 5).

The powers of agency meet with social structures that enclose the properties of enablement and constraint and this is how the world is transformed and shaped:

> *'...the meeting point of structure and agency, and the co-acting of psychological, cultural and social structures that people encounter, use and embody, structures which position them, motivate them, circumscribe their options and their capacity to respond' (Carter & New 2004:11)*

Bhaskar employs the example of Durkheim, who feels the constraint of language, a social structure itself since if he does not speak French, he will not be able to communicate with his fellows, to remind us that *'social structures must be conceived as in principle enabling, not just coercive'* (Bhaskar 1998: 220). Thinking of an individual who possesses awareness

about his/her health in a particular context, which has particular social structures, e.g. a widespread well-maintained network of bicycle trails, easy access to sports facilities, wide availability of fresh fruits on sale and certain regulations to ease access to fresh, local food in stores means he/she is better enabled to make choices that influence his/her health in a positive way. In another context, with different social structures, people would possibly face constraints from having particular lifestyle choices. Yet, that appears to be a social explanation for why fewer people would become obese in the first context and possibly more in the second one.

Critiques on obesity focus through critical realism

The equation: 'energy in=energy out equates to normal weight' and 'energy in>energy out equates to excess weight' as a causal law of biology ('normal' and 'overweight' as defined according to individual biology) is, according to Bhaskar's critical realism, ontologically different from defining the same thing according to a BMI classification, which is not a causal law but a social product; it is otherwise the pattern of events (Bhaskar & Lawson 1998). In simple terms, people do not eat or are not physically active in order to maintain this mathematical equation of energy balance. In the same way, Bhaskar (1998a) reminds us that people do not marry bearing in mind to reproduce the nuclear family model or do not work to carry on the capitalist economy. In critical realism terms, what is relevant at this point is the distinction between object and subject or of definition and production, as conceptualised by Sayer (2000). Non-social phenomena can be socially defined but not socially produced, in contrast with social phenomena, which are both socially produced and socially defined. Therefore, the object of

natural science has a real production but it is defined by individual meanings. Here is where critical realism strategically differentiates from the constructionist views of reality, according to which reality is socially produced. Critical realism is different in the sense that people change their views of reality, yet reality itself keeps as it is: *'as if when we abandoned the flat earth theory for a spherical earth theory, the earth itself changed shape!'* (Sayer 2000: 26). Causal laws themselves do not entail values but entail the values and meanings we attach to them. If the task of science is to gain insight into how structures and mechanisms rule a phenomenon, the work of philosophy is to make a difference to science by shaping and *'affecting the questions put to reality, and the manner in which this is done'* (Bhaskar & Lawson 1998: 6).

Applying this thinking to the obesity critiques, the biological pathway in the production of fat in the human body is an object of natural sciences, for instance of the Endocrine and Metabolic Physiology sciences. This phenomenon is a causal law and it is not susceptible to change (although our knowledge about the phenomenon changes). However, the study of obesity as a socially defined phenomenon entails values and understandings attached to it and this is indeed susceptible to change. An example of change in social definitions represents the various critiques raised against the 'obesity epidemic', analysed in the section with the social critiques on obesity, which, out of reaction to the extreme 'medicalisation' of obesity, have reached the point of doubting the existence of the phenomenon per se.

Summarising, in this chapter I reviewed some of the literature on obesity. I introduced the topic of obesity and the reasons for its importance for both the public health establishment, as well as for society. I analysed the

social critiques on obesity and the nature of responses to prevent obesity. I examined the Obesity System Influence Diagram as the most appropriate tool to understand the determinants of obesity and as the basis for the selection of case study interventions for this research. In this chapter I also reviewed some literature on the philosophy of critical realism and realistic evaluation, which apply the principles of critical realism in evaluation methodology. I also reviewed some literature with the applications of realistic evaluation. Finally, I elaborated and reflected on the critical realism approach on the prevention of obesity. I discussed the structure and agency relationship as seen through the critical realism lens, in relation to obesity prevention and the possibility of change induced by the theoretical approach of critical realism. Lastly, I considered the current critiques in relation to the obesity focus through critical realism.

Chapter 3: Methodology and Methods

The introduction chapter mentioned that the focus of this research is to bring some of the insights from realistic evaluation which draws on critical realism philosophy and to understand what it is about particular ways of addressing obesity, which enable those interventions to work the way they do. The fact that these interventions are presented as interventions that 'work' is because they have established a certain degree of effectiveness in terms of a measured effect (Thorogood & Coombes 2004). The criteria followed for the included types of outcome measures and the included types of evaluation studies are described in the section with the methods for the systematic literature review.

However, the nature of my enquiry was not a quantitative evaluation with an epidemiological stance interested in questions such as how many people took part in the interventions, how many participants lost weight or if they do enough exercise to stay healthy, although certainly do not diminish the value of providing answers to such questions. My enquiry was about the whole environment, the social, political and cultural thinking around obesity, body size, diet and all the other components of a context and what people think about this context. I was interested to find out what the people involved in the organisation thought was going on. As a researcher, in order to carry out this enquiry I used the lens of critical realism. Thus in this piece of research I examined what critical realism brings to understanding all these important components which enable the chosen case study interventions for the prevention of obesity to work the way they do.

The nature of the knowledge I am seeking is not the abstract application of a theoretical approach. The nature of the knowledge I am seeking is grounded on the people who are involved in the projects, the opinions, the understanding, the thinking and what eventually they thought they were doing. In relation to the nature of this knowledge, in the previous literature chapter, I analysed the ontology of my research – in principle what I think knowledge is - and the reasons I chose the framework of critical realism and realistic evaluation to view the reality of the interventions. This chapter is about the epistemology of my research: how I intend to go after 'knowledge' and find out its nature.

In this chapter, I will thus examine which implication has this particular approach on the way I collect and analyse the data of this enquiry. More specifically, I will analyse in detail the methods I used and why they were deemed appropriate. It is important to stress that adopting the methodological approach of critical realism had implications on how I conducted my research. The view I took on the nature of knowledge shapes the way I carried out this piece of research. For instance, in this chapter, it will be showcased why the format of semi-structured interviews was deemed suitable among the different ways of doing qualitative research. Thus under the framework of critical realism it appeared quite appropriate to use the format of semi-structured interviews for the collection of my data because I felt it could allow me to both impose the structure of CMO and still give freedom to the interviewees to speak about their experiences.

In the following sections of the present chapter, I will analyse the chosen framework and the rationale for choosing this approach for my research and finally I will present my reflections on the research process.

The theoretical framework of the enquiry

In the introduction chapter it was stated that the aim of this thesis is to understand the important components of sustainable interventions to prevent obesity by using the critical realism philosophy as a framework of thinking. The 'Realistic Evaluation' of Pawson & Tilley (1997) appears as a contribution towards putting critical realism into research practice. Thus, this thesis uses a realistic evaluation approach to evaluate/examine interventions that aim at the prevention of obesity. In particular, the nature of this enquiry is to understand the important components of sustainable interventions to prevent obesity by using realistic evaluation, which draws on the philosophy of critical realism. Sustainable interventions should be understood in terms of being able to continue having an effect on people's everyday lives when the intervention eventually stops. Conceptualising preventive action on obesity under a realistic evaluation approach includes placing interest not on measuring the effects of the intervention (e.g. how much individuals exercise or how much weight they manage to lose). As I will discuss in the following sections of the present chapter, a realistic evaluation approach would be concerned with examining how the intervention worked and under what circumstances it produced or did not produce its outcomes (Pawson & Tilley 1997). The fact that there were outcomes in the interventions is taken for granted because this was one reason for the selection of these particular interventions to be case studies for this research.

In this examination the ontological standpoint with which I am trying to approach the area of prevention of obesity in general and the interventions in particular, is neither constructionist nor objectivist. That being said, my approach to how prevention of obesity is possible was not of an 'obesogenic' environment (Swinburn, Egger, & Raza 1999), which confronts people externally as a given structure. On the other hand, I did not adopt an objectivist approach that would possibly regard obesity as a phenomenon stemming from personal choices on lifestyle, which therefore would put the responsibility for being obese on people.

My philosophical standpoint was of Bhaskar's critical realism approach, that proposes that the social world is two things simultaneously: both the 'ever-present condition' and the constantly 'reproduced outcome of human agency' (Bhaskar 1998: 83).

> *'People in their conscious activity, for the most part unconsciously reproduce (and occasionally transform) the structures governing their substantive activities of production' (Bhaskar 1998: 215)*

The social world in critical realism is regarded not as external to its social actors; neither is it the case that the social world is built up solely from the behaviours of the social actors (Bryman 2004).

As I noted in the previous chapter, in the framework of critical realism as a philosophical approach, the hope of social change and the faith that is put on the agency of people inspired me because people in critical realism are seen as agents who do not *'create social structure but reproduce and*

transform it …as for all activity it presupposes the prior existence of social forms' (Bhaskar 1998: 214).

In this perspective, obesity, as a social phenomenon which is driven through a range of powerful structural drivers, is not a situation that does not change or cannot be altered by the agency of people. All current forms of interventions intended to target obesity such as international or national policies, community interventions, national or local projects and initiatives, are all forms of human action and as such they aim to produce a social change. Besides, social phenomena exist in social systems which Pawson and Tilley elaborate as "fields" in which people create the new conditions within the given circumstances, the same way that an intervention attempts to introduce 'some' change within the given structure of a social entity. As a result, social systems do not remain static but they are more or less open to change as Pawson and Tilley consider below:

> *'…the balance of mechanisms, contexts and regularities which sustain social order is prone to a perpetual and self-generated reshaping... In social systems, these people make history, though not in conditions of their own choosing. That is to say, people are often aware of the patterns and regularities into which their lives are shaped, are aware of the choices which channel their activities, and are aware too of the broader social forces that limit their opportunities. This awareness will result, in some people at least, in a desire to change the pattern' (Pawson & Tilley 1997: 72)*

Summarising, in this section I introduced the philosophical stance of critical realism in the study of interventions to prevent obesity along with the realistic evaluation of Pawson & Tilley (1997), which manages to apply critical realism into research practice. As I came to consider after studying the doctrine of realistic evaluation, the available forms of interventions that target obesity (international or national policies, community interventions national or local projects and initiative) are all forms of human action and as such they aim to produce a social change. Thus, any social change which is achieved by a given intervention can be seen as the result of the interplay of both agency and structure. So this framework of thinking will be guiding the analysis of the interventions which aim at prevention of obesity.

Rationale of the chosen framework

In the previous section I claimed that under the perspective of realistic evaluation, any intervention implemented to prevent obesity in a given population and setting is a social intervention and as such, it is a social system in its own right, interested in producing social change.

Pawson and Tilley (1997) affirmed that the proposed realistic evaluation as a form of applied research offers the possibility of expanding and deepening society's understanding on what worked, for whom and why in certain interventions, in a particular community. So it helps explain what it is about the interventions, how the interventions are conceived, constructed and implemented and within what framework they are enabled to produce the effects that they do. A realistic evaluation approach attempts to enter the social system of an intervention to explore *'what works for whom and why'* (Pawson & Tilley 1997).

In realistic evaluation, any measurable effects (in the case of obesity, perhaps the decreasing rate of overweight prevalence noted in an intervention or the increasing uptake of fruits and vegetables, or the increasing time in physical exercise) would be called the 'regularity' of interest (Pawson & Tilley 1997). A realistic evaluation approach would thus aim to provide explanations about these regularities, namely the changes in decreasing or even increasing rates of obesity, or in the increasing uptake of fruits and vegetables, in other words the change produced by the social system of an intervention. Thus, with realistic evaluation it appears possible to understand the change produced in a social system, because the effort is in the direction of explaining why and how change happened and not just how much change happened. Pawson & Tilley (1997) encapsulate the task of the realistic enquiry in the provision of explanations which assume the shape of mechanisms describing how humans interact with given structures:

> *'The basic task of social inquiry is to explain interesting, puzzling, socially significant regularities (R). Explanation takes the form of positing some underlying mechanism (M) which generates the regularity and thus consists of propositions about how the interplay between structure and agency has constituted the regularity' (Pawson & Tilley 1997: 71)*

Pawson and Tilley are arguing that the difference of realistic evaluation in relation to a 'succession'-like mode of causality is that it doesn't seek to establish mere causal pathways between interventions and results (Pawson & Tilley 1997). For example, in its simplest form of involved variables, a school

intervention that invites pupils to take an additional hour of exercise per day is linearly related to a statistically significant outcome of reduced BMI in a certain sample of pupils within a certain time period. In realistic evaluation, however, causality is generative. By the term 'generative', it is meant that causality is produced, it is actually created in the form of an explanation of *'what works for whom and why'* (Pawson & Tilley 1997). It is not the result of an A reason leading successively to a B result. The additional hour of exercise in realistic evaluation does not provide an explanation for why the BMI reduced in the sample of pupils, or whether it is not the mechanism which produced the outcome of the reduced BMI. This would mean that within a realist evaluation perspective I am not expected to come up with variables or correlates associated with each other, neither with direct relationships nor intermediate confounding variables. Having said that, a realist researcher should end up with explanations about the association themselves. This is what in realist terminology is called 'generative mechanisms', which are exactly the explanations about the regularities themselves (Pawson & Tilley 1997). A generative mechanism is, according to Pawson and Tilley, a 'small theory' which explains the phenomena:

> *'A theory which spells out the potential of human resources and reasoning... An account of the make-up, behaviour, and interrelationships of these processes which are responsible for the regularity' (Pawson & Tilley 1997: 68)*

Summarising, the biomedical world in the epidemiological and public health reports believes in the general assertion that no country appears to

have found a sustainable response to obesity (UK Government Office for Science 2007; World Health Organization 2007). In the introduction chapter I stressed that the overall aim of my research was to examine what critical realism brings to understanding the important components of sustainable interventions to prevent obesity. As mentioned, the sustainability of interventions should be understood not in terms of environmental sustainability, but rather in terms of whether the intervention was aiming for a sustained and long-term effect, not for a short-term effect. By studying critical realism and realistic evaluation I came to believe that a deeper understanding of the generative mechanisms that operate during particular community interventions aimed at the prevention of obesity could have the potential to provide more information on the important components of sustainable interventions to prevent obesity.

'Context' in the context of interventions to prevent obesity

In this section I will discuss the importance of the notion of 'context' and why different contexts affect the impact of interventions in a different way.

In realistic evaluation, as described by Pawson and Tilley (1997), the significance of the context, the environment or the conditions and how different contexts facilitate or do not facilitate the activation of mechanisms are acknowledged.

I visualise a hypothetical intervention in a primary school aiming to prevent school children from becoming overweight in a rural area of Greece. This intervention is going to be introduced in a given social context. People living in this rural area might be on average of lower social background as measured by annual income. Parents mostly drive their children to school,

because walking or cycling is not a viable option due to the lack of well-maintained pavements or bicycle lanes. The school canteen sells fizzy drinks, pastries and sugary snacks and children rarely bring their own lunch, but mostly, influenced from their peers, buy products from the canteen. The communal school sports facilities are old and poorly–maintained and thus students are not using them apart from the dedicated hours for physical activity assigned, according to the school curriculum.

This hypothetical background articulates briefly how a context has a particular history, norms and social values, a particular infrastructure, particular demographic indices and rates of unemployment, migration and overweight prevalence in children. So context does not only refer to the mere location that an intervention takes place. It includes the 'circumstances' or the 'context' or the 'conditions' or the 'structures' in which an intervention is happening and it emerges as a dynamic part, which frames, influences and determines why an effect happens or doesn't happen. As Pawson and Tilley argue:

> *'By social context, we do not refer simply to the spatial or geographical or institutional location into which programs are embedded. So whilst indeed programs are initiated in prisons, hospitals, schools, neighbourhoods, and car parks, it is the prior set of social rules, norms, values and interrelationships gathered in these places which sets limits on the efficacy of program mechanisms' (Pawson & Tilley 1997: 70)*

An intervention intended to prevent obesity employs particular strategies to do so, or using the realist vocabulary, the above analysed 'mechanisms', which are going to struggle with these pre-existing conditions. In this case the realist evaluator has to assess which of these pre-existing conditions enable or disable the mechanisms of the intervention (Pawson & Tilley 1997).

Drawing from the work of McKee et al. (1996), in my research, broader context elements were taken into consideration, such as the macro context (health services, public health prominence, NGOs) the meso context (community/town infrastructure, sports and recreation facilities) and the micro context (conditions/climate within services, university departments) of the case study interventions.

Methods

As demonstrated in the previous section, the methodological approach that I adopted in the first place has implications on the methods with which I selected and analysed the data of my study. Thus, in the following section the methods followed in this research are examined. I will discuss the rationale for the methods I applied and the criteria I chose to set in order to select the appropriate interventions. I will describe how I used qualitative methods to explore the participants' views and what they thought was going on in the organisation of the interventions in order to see how the identified themes could then link into more general categories. In particular, the format of semi-structures interviews was chosen since it was deemed as the most appropriate method in order to impose the structure of CMO, which is endorsed by the realistic evaluation approach. I will discuss how I used

strategies from grounded theory in order to analyse my data and how I reconciled conceptually grounded theory with realistic evaluation. Finally, I will discuss the need to use a pilot study and the ethical considerations of my research.

Qualitative methods

The nature of the knowledge I am trying to capture is based on the understandings, the feelings, the attitudes, the judgements and the experiences of the people involved in the projects. However, my purpose is not to add to the knowledge as a fact of the particular interventions. My effort will be to use the understanding and the conceptualisation of the people involved in the interventions, in order to make sense of the knowledge that exists in these interventions. My final purpose will be to make configurations which are linked with more general categories of phenomena and explain the reality of these interventions.

Thus, I used qualitative methods to explore the views of people involved in the organisation and administration of projects aimed to prevent obesity in communities. The rationale for choosing qualitative methods and in particular, in-depth semi-structured interviews, in order to collect data about the three interventions was twofold. The first reason is the valuable amount of knowledge which existed in the people involved in the operation of the three interventions, which was not apparent in the publicly available information for the three projects. The only method to capture this knowledge in terms of organisational memory, function of the project and operational experiences, was by talking to them. Therefore, interviewing the organisers of the three interventions was the most suitable method to ‘lift the curtains’ of a project’s

function as an organisation and what its mechanisms in action are to create change in terms of the objectives it has. It is suggested that qualitative research can be used in research about *'organizational functioning, social movements or interactional relationships'* (Glaser & Strauss 1967: 42).

Although, as a fact, there is knowledge about the operation of the interventions which will be present and eventually captured by interviewing the people organising these interventions, as clarified in the beginning of this section, the target was to reach another layer of knowledge. Thus, the way this knowledge is conceptualised by the interviewees is the building blocks to synthesise more general theories linking eventually to more abstract social phenomena. For this reason an in-depth, semi-structured interview format was the ideal form for exploring the experiences of the interviewees in contrast to a structured questionnaire format, which would not be appropriate for this purpose.

In relation to the mode of conducting the interviews I aimed at having face-to-face interviews mostly. However, due to concerns related to the budget of the fieldwork, I had to consider telephone interviews as well. In relation to the usage of phone interviews in contrast with face-to-face interviews, Vogl (2013) demonstrated in her research that their outcome was near equal and that the two modes of interviewing had small differences. In particular, in the case of telephone interviews with children, it was showcased that they appeared more appealing because they helped children to stay concentrated. Sturges (2004) also found insignificant variances in the interview records between conducting phone interviews and face-to-face interviews. That made me confident about the legitimacy of the data obtained

from face-to-face as well as telephone interviews. I also felt that the lack of personal contact and the difficulty to create rapport without personal contact, which exists in face-to-face interviews, might be compensated by the sentiment of freedom to speak from the side of the interviewee.

Summarising, in my research I primarily aimed to explore the views of the participant interviewees, what they thought they were doing and their ways of seeing what was going on in the way they operated their programs. Thus, the nature of this research is to examine and provide some indication of how the issues under examination were conceptualised by the participant interviewees, in order to be the building blocks that will link into more abstract and general categories. In order to achieve this, I chose the format of in-depth semi-structured interviews. I aimed at face-to-face interviews with the option of telephone interviews in case of contingencies, which do not allow for travelling to reach the interviewee.

Methods for the systematic literature review

It is indicated in the introduction chapter that the research purpose of this thesis is to apply realistic evaluation based on critical realism in order to understand the nature of effective interventions to prevent obesity in European countries. In order to do this I needed case study interventions. For this reason I conducted a systematic literature review of all interventions that prevent obesity in European countries, with a structured and systematically defined set of criteria in order to select case studies for this research, which are described below.

Types of studies

The literature review included study designs such as randomised controlled trials, controlled trials without randomisation, observational studies and experimental, quasi-experimental studies and qualitative studies.

Types of participants

In the literature review studies about all age groups such as infants, children, adolescents, adults and older people and all races were included. Studies were included if they reported normal-weight individuals and slightly – near the cut-off limits – overweight individuals. Studies about obese individuals were not included under the rationale that in that case the target of the study is treatment and not prevention. However, studies whose overall sample also contained a minority of obese people were included to reflect that a public health intervention in a given setting could contain people with different BMI. Studies were included if the participants were healthy individuals. Studies about individuals with risk factors for cardiovascular diseases, such as hypertension, overweight prevalence and smoking status, were also included as long as the participants did not have an established disease or were not under pharmaceutical regimes. Studies designed for pregnant women were not included, nor were studies designed for people with appetite disorders, such as anorexia or bulimia nervosa.

Types of interventions

The included intervention studies were principally in relation to the prevention of overweight prevalence and obesity, improvement of diet and nutrition, promotion of physical activity and exercise, or, in general, promotion of healthier lifestyles. Interventions aiming at prevention of cardiovascular disease were included if they clearly referred to obesity and overweight

prevention as well, on the basis that obesity and being overweight are risk factors for cardiovascular diseases. Interventions aiming at prevention of diabetes were also included if they clearly referred to obesity and being overweight as well on the basis that obesity and being overweight are risk factors for diabetes. However interventions whose principal aim were prevention of cardiovascular disease and diabetes were deemed to have a different perspective in relation to interventions targeting obesity and thus were not included.

Interventions with different strategies and approaches to prevention of overweight prevalence and/or obesity were included, such as the multidisciplinary, behavioural, psychological and educational/counselling approach.

Setting

Interventions carried out in all kinds of settings were included, such as kindergartens, schools, universities, homes, workplaces, neighbourhoods, communal facilities and primary care clinics. Interventions in hospitals were mostly excluded – although considered for screening - reflecting the fact that most of the time they were intended to treat obese patients.

Interventions carried out in all countries of Europe were included. Non-European studies were not considered in order to maintain the European focus of my study.

Duration of intervention

Interventions with a duration of a minimum of 6 months (24 weeks) were included. Studies reporting interventions with a duration of less than

three months were not included because they were not considered long-term interventions.

Types of outcome measures

Studies were included when they reported measurement of baseline and after-intervention change in one or more of the following primary outcomes: Body Mass Index (BMI), BMI Z-score, anthropometric indices (weight and height), skin-fold thickness measurements, body fat content (percentage), waist to hip ratio, waist circumference, various measures of physical activity and diet knowledge.

Search method

The Ovid Medline database (OvidSP 2010) was searched with the search strategy presented in Appendix 1. The database was searched without time limitation until August 03 2010. Studies written in all languages were considered.

Search strategy

The search strategy (Appendix 1) was developed with the aim of identifying studies that target improving nutrition, improving physical activity or preventing overweight prevalence and/or obesity in European countries. Both free text words and controlled vocabulary (MeSH: Medical Subject Headings) were used for this purpose. The Cochrane Handbook for Systematic Reviews of Interventions Version 5.0.1 was used in order to guide the development of the search strategy. The basic concepts of the search strategy were health condition (obesity and/or being overweight), different types of strategies (physical activity, diet, psychological and behavioural approaches,

complementary therapies and health promotion approaches), the concept of 'prevention', different types of study design and countries in Europe.

Management of results

Articles were considered for inclusion if during the first screening phase it was sufficient from the title and abstract to conclude that the inclusion criteria were met. Articles were excluded during the first screening phase if it was sufficient from the title and abstract to conclude that the study was about: a non-European country, obese participants, participants with established disease (diabetes, hypertension or cardiovascular disease) and/or under a pharmaceutical regime, pregnant women, individuals with Prader-Willi or Pickwickian syndrome, or individuals with appetite disorders and finally animals.

If it was not possible to exclude a paper based on title and abstract, then the full text paper was obtained and examined.

In total, the search strategy yielded 2471 results; 108 papers were selected during the first screening phase and 35 studies/papers (in some cases for the same study, more than one paper was identified) were selected during the second screening phase. During a third screening phase with a careful review of the full text paper and possible contact with the authors of the study, another seven studies were rejected. Therefore from the third screening phase of the systematic literature review, 28 studies emerged for inclusion in the final pool of interventions.

A QUOROM flow diagram (Figure 1) depicts the process of the studies' identification and the selection of the potentially eligible papers.

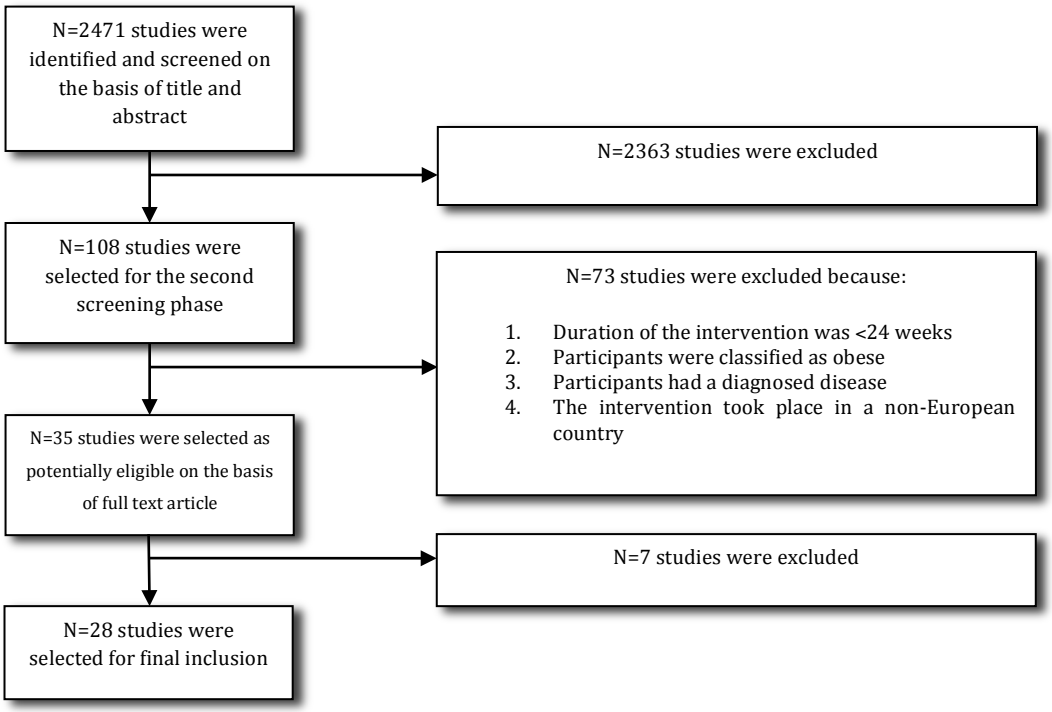


Figure 1: QUOROM flow diagram with the screening process

Methods for the final case study selection

The final pool included 28 interventions obtained from the systematic literature review from PubMed and Medline and another 6 interventions found from the 'grey' literature. I searched national reports such as Germany's "National initiative to promote healthy diets and physical activity" in order to find information on the existing projects (Bundesministerium für Ernährung Landwirtschaft und Verbraucherschutz (BMELV) & Bundesministerium für Gesundheit 2008). In this way, I had an overview of all projects offered and their corresponding webpage, which allowed me to examine further projects. For the UK, I searched the NHS central directory and the corresponding Welsh NHS central directory for national projects.

Description of the scoring system

The full papers of the included studies were obtained in order to examine and dissect information about the interventions. The examination of the interventions was performed according to a scoring system which included the following elements:

General elements of the interventions

All the following were taken into consideration: the country/town(s) where the intervention was conducted, the type of setting and the age/type of participants, whether the intervention was about diet, physical activity or both, and whether it considered addressing minority populations and/or low socio-economic status (SES) participants. The latter is considered important because it denotes that the intervention attempts to address inequalities.

Sustainability of the interventions

Another question I aimed to answer after reading the intervention paper or searching the intervention webpage was in relation to the sustainability of the intervention. The question was whether the intervention aimed for a sustained effect to the targeted community. Therefore, I examined whether the intervention aimed to induce change in the environment within existing channels by asking the following question:

- When the intervention stops, could the induced change/effect/impact continue?

In order to answer this question, particular importance was given to identifying in the papers, references related to sustainability or sustained effects. Some random references to provide an indication of the vocabulary that I aimed to identify are presented below. In the Dutch intervention JUMP-IN Kids in Motion (Jurg et al. 2006), the authors stated:

'School sport activities are characterised by continuity. As far as possible, use will be made of the normal local range of physical activities and existing sports activities in the area, and the school child care centres in the school. 'School sport activities' is designed to be adopted in the regular school policy, in order that school sport activities will be available all school year long.' (Jurg et al. 2006: 322)

In the TigerKids intervention in Germany (Bayer et al. 2009), the authors stated the following:

[=The project TigerKids has simple and clearly formed targets, which can be permanently integrated in the everyday life of the kindergarten] (Strauss et al. 2010: 51)

Such references indicated that the intervention followed, or at least intended to follow, a sustained approach; a fact that made the project a potential candidate for realistic evaluation. Such references were sought to be identified to indicate if the philosophy of the intervention was aligned with the principles of a critical realism framework for the prevention of obesity.

Number of thematic clusters of obesity

According to the Foresight Report, any intervention/project/initiative targeting obesity should address as many determinants of obesity in order to achieve a sustained result (UK Government Office for Science 2007). For this reason, the Foresight Report includes the 'Obesity Systems Influence Diagram', which attempted to group the determinants of obesity into seven

key thematic clusters (physiology, individual physical activity, physical activity environment, individual psychology, social psychology, food production and food consumption) and a number of related variables.

Thus, I tried to identify within the intervention the number of the clusters which are addressed with activities. I attempted to answer the following question for each intervention:

- ‘How many key thematic clusters of obesity does each intervention address?’

If, for instance, an intervention among others offers free swimming lessons only for migrant women who otherwise would not exercise in the same area with men, then it addresses the following clusters: individual physical activity cluster, physical activity environment cluster, individual psychology cluster and social psychology cluster. It should be clarified that the number of variables that are targeted within each thematic cluster were not considered in quantitative terms (one variable within each thematic cluster was considered an adequate number of variables to justify the fact that the intervention targets the corresponding thematic cluster).

These criteria allowed me to rate the projects as first, second and third level candidates for the realistic evaluation. For some projects, I used the intermediate rating of first-second or second-third candidate projects to hold them as back-up projects, in case I had an insufficient number of projects to fulfil my criteria.

The final round of rating included a rating of the projects based on the following scientific and pragmatic aspects of the projects.

The scientific aspects of the project were as follows:

- if the intervention addressed both parameters of diet and physical activity
- if indeed the intervention induced change in the environment within existing channels
- if in its philosophy, the intervention considered minorities and/or low socioeconomic status participants
- the number of thematic clusters the intervention addressed
- the existence of measurable outcomes resulting from an evaluation of the intervention

The pragmatic and practical aspects of the project were as follows:

- the language in which the intervention was conducted
- the feasibility of approaching people for an interview, particularly in relation to key personnel who possessed at that time high rank positions
- the feasibility of acquiring contact information (email addresses and telephone numbers) from the team of people involved in the intervention
- the availability of information through publications or through a project's dedicated website, in order to acquire the necessary information for scoring and examining whether the intervention had the potential to be a case study candidate for realistic evaluation

In relation to the linguistic criterion, since I was able to conduct qualitative work in Greek, English and German, one would question the fact that the literature review included all European countries and not

straightforwardly the countries that I could conduct interviews in the above-mentioned languages. The reason that the literature review included all European countries was in order to avoid missing interventions that were pan-European, thus including both the countries of interest for my research as well as other countries. Moreover, given the fact that it was unknown if the number of interventions aligned with my criteria would be sufficient, it was considered safer to have a picture of all interventions in Europe.

Results: Final case study interventions

In the next paragraph, I describe how, from the projects rated as first-level candidates, I ended up selecting the final case study interventions which would be suitable for the realistic evaluation, given the fact that there was a sufficient number of interventions so that further compromise to the application of my criteria was not necessary.

The eleven-candidate projects are presented in Table 1. All eleven-candidate projects were rated in a systematic and rigorous manner. The rating process with both scientific and pragmatic criteria is presented in Appendix 2.

Table 1: Interventions rated as first-level candidates

Health and nutrition education in primary schools in Crete: changes in chronic disease risk factors following a 6-y intervention program - Greece (Manios et al. 2002).
Randomised controlled trial of primary school-based intervention to reduce risk factors for obesity (Active Programme Promoting Life Style Education in School APPLES) - UK (Sahota et al. 2001)
School-based prevention: effects on obesity and physical performance after 4 years (Children's Health Interventional Trial CHILT Project) - Germany (Muller, Danielzik, & Pust 2005)
Short- and mid-term effects of a setting-based prevention program to reduce obesity risk factors in children: A cluster-randomised trial (TIGERKIDS) - Germany (Bayer, von, Strauss, Mitschek, Toschke, Hose, & Koletzko 2009)
BIG - Germany (http://www.big-projekt.de/en)
A school-based physical activity program to improve health and fitness in children aged 6-13y (Kinder-Sportstudie KISS): study design of a RCT – Germany (Zahner et al. 2006)
WALKING FOR HEALTH - UK (http://www.walkingforhealth.org.uk/)
Bike It/Sustrans - UK (http://www.sustrans.org.uk/)
EPODE-PAIDEIATROFI - Greece (http://www.paideiatrofi.org/)
ShapeUp Europe - Greece/Germany/UK (http://www.shapeupeurope.net/index.php?page=home)
Healthy Weight Communities/Scotland (http://www.healthyweightcommunities.org.uk/)

The impact of each criterion is not equivalent. I considered the following order, starting from the criterion with the lowest significance to the highest:

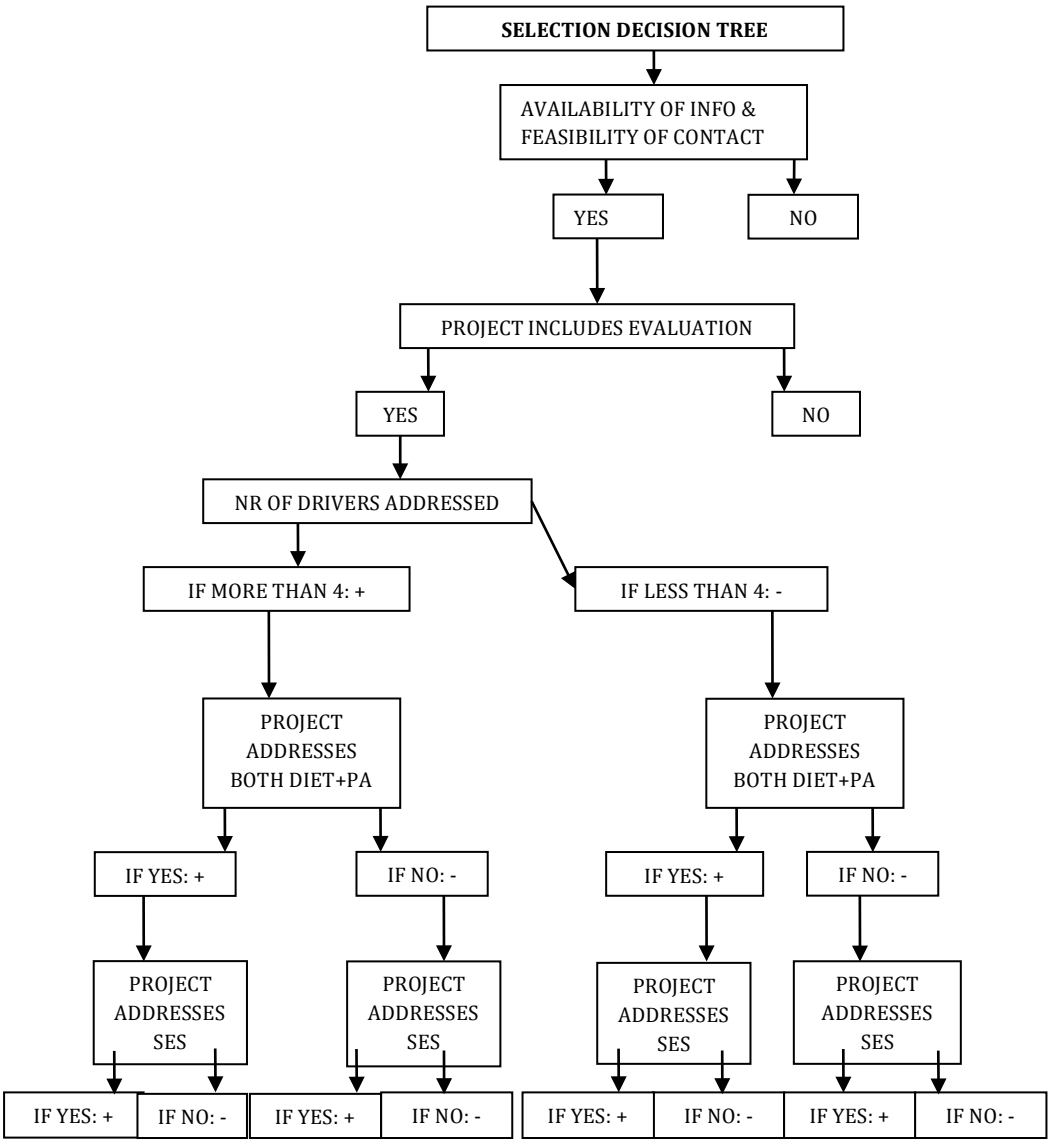
1. Availability of information and ease to contact people,
2. Intervention included evaluation,
3. Number of drivers the intervention addressed,

4. Intervention addressing both physical activity and diet, and
5. Intervention addressing socioeconomic status.

I considered four scientific criteria and one of practical nature. The criterion of feasibility to contact the personnel from the intervention was deemed the most important since the research would be impossible if I was unable to approach people within the projects for the interviews. From the scientific criteria, the existence of evaluation was deemed to be the most significant since the indication of some kind of measurable outcome and effectiveness is necessary for realistic evaluation. In relation to the number of drivers addressed by the project, it was predefined that all projects addressing more than four drivers gained a ‘plus’ credit, so in this case all projects were rated equally.

The projects that were rated with ‘minus’ in any of the first two columns were excluded from the selection process. The third column was the same for all programs, so the winner-candidates were the projects with the smallest number of ‘minus’ overall. According to the systematic rating, the projects in the orange field were rated higher. Figure 2, below, presents the selection process of the final case study interventions in the form of a decision tree.

Figure 2: Decision tree of the selection process of the final case study interventions



The final case studies were selected on the basis of accessibility to approach the organisers of the projects and conduct interviews with them. Particularly, I attempted to establish contact with the corresponding persons of the projects via email, which explained the aims of my research. I was not able to establish contact with the projects APPLES (Sahota, Rudolf, Dixey, Hill, Barth, & Cade 2001), CHILT (Muller, Danielzik, & Pust 2005),

TIGERKIDS (Bayer, von, Strauss, Mitschek, Toschke, Hose, & Koletzko 2009), and KISS (Zahner, Puder, Roth, Schmid, Guldimann, Puhse, Knopfli, Braun-Fahrlander, Marti, & Kriemler 2006). The contact persons from the projects BIG, HWC and WfH responded to my communication and stated their willingness to be included in my research. In view of the fact that the three final projects were on-going projects, the project in Crete (Manios, Moschandreas, Hatzis, & Kafatos 2002), although highly rated, was not considered in the final case studies because it was active until 1998, thus it was considered out of date. The Paideiatrofi project could not be included in the final case studies due to lack of evaluation. However the Paideitrofi project was ideal as a pilot study to test my interview schedule, as is analysed below in a separate section.

Method of qualitative analysis

The following section describes the process followed to explore the views of the participants in the selected three case studies/interventions. More particularly, the procedure of the qualitative data collection and the methods of qualitative analysis will be presented.

The schedule of the interview topic guide

The topic guide of the interviews was developed on the basis of serving the needs of the research. Thus, I developed an interview topic guide based on the key concepts of critical realism and the realistic evaluation of ‘context’, ‘mechanism’ and ‘outcome’.

The interview topic guide included three thematic units which reflected the context, the mechanisms and the outcome of the intervention. It started

with some introductory questions which helped with familiarisation and the building of rapport between the interviewee and myself. The introductory questions were aimed at exploring known issues to the interviewee, such as the role of the interviewee in the project and her/his background. The next set of questions were in relation to the set-up of the project, the organisational structure and its implementation. This was followed by the questions which were thought to help identify the intervention mechanisms which both enabled and disabled the impact of the project. Another set of questions followed, aimed at exploring the context of the intervention and the associated outcomes of the project. Finally, the topic guide ended with a set of questions aimed at exploring the sustainability of the intervention and its future impact, as well as with a question which aimed to capture the general perception of the interviewee for the project.

The questions were specific enough to navigate the interviewee towards a discussion in relation to a defined area, but simultaneously open enough to allow for general elaboration of the discussion issue. Open questions at the end of specific questions were included as well, prompting the interviewee to discuss critical issues and elaborate his/her views.

The interview topic guide was tested with the Paideiatrofi project which was used as a pilot study. The procedure for the pilot study and the way it changed and informed my main field of study will be described in detail in the next section.

The English version of the topic guide can be found in Appendix 4 and the German version in Appendix 5.

The pilot project

I considered conducting a pilot study as a necessary step before proceeding to the main fieldwork. I felt that it was necessary to assess the capacity of my questions to explore the intended areas of exploration and whether they were fit for purpose. Particularly, I needed to test if the interviewees could perceive the research questions the way I intended them to be perceived and if with this topic guide I would be able to collect the experiences and the opinions of the interviewees. Besides, before I proceeded with my interviews in other countries where I would not have the opportunity to meet the same interviewee twice, I sought to test the practical issues of my interview process such as the estimated interview time schedule required to cover the question material or my ability to create a good rapport. The fact that I had the Paideiatrofi project in my country was an ideal opportunity to conduct a pilot study which made me more confident to proceed in the fieldwork afterwards.

As I analysed in the previous section, I developed an interview schedule based on the key concepts of critical realism and realistic evaluation of ‘context’, ‘mechanism’ and ‘outcome’, which I tested, with the help of the pilot study. The Paideiatrofi project was considered a suitable project for my pilot study for the following reasons: in general it was consistent with the criteria developed for the selection of interventions apart from the fact that the project did not include evaluation. The implication of this fact was that the nature of the issues that were raised was likely to be similar to the chosen case studies for realistic evaluation. As a result, I felt that my research could benefit from the fact that I had the opportunity to test the content of my

interview topic guide and assess the capacity of my topic guide to explore the intended areas of exploration. At the end, I could not assess with certainty if this was really achieved. However, the fact that all pilot studies managed to capture responses which were of similar nature and intrigued interviewees to speak about the whole range of the phenomenon in question made me feel confident that the topic guide did indeed have this capacity.

Particularly, the Paideiatrofi project was also ideal as a pilot case study due to the related convenience and proximity for me to approach the interviewees and conduct the interviews. My previous contact with the project's organisers in the annual 'Paideiatrofi by EPODE' national congress in January 2011 had allowed me to acquire first-hand information about the aim and activities of the project, contact details of the organisers and assurance that key persons involved in the project were willing to participate in my research.

The value of conducting the pilot study was significant. The pilot project helped me to test the procedures and the appropriateness of my interview schedule and in particular the topic guide for the interviews. More specifically, with the help of the pilot study, I was able to test both practical issues such as the estimated interview time schedule required to cover the question material, my ability to create a good rapport, as well as to probe different types of interviewees and their emotional reactions. I identified linguistic ways to build rapport and help interviewees elaborate their responses further. In addition, I was able to test whether the questions were formulated in a clear and easily understood manner, in an order that made sense. Finally and most importantly, I was able to test whether the questions themselves were fit for

the purpose and if it was possible to provide enough motivation and opportunity for the interviewee to think and speak about the intended issues and raise their ideas, concepts, problems and issues, with this designed set of questions.

From the end of March until the end of April 2011, I conducted three interviews in Greek with the project manager of the project and two community leaders. The time schedule required to cover the entire topic guide was estimated at about 60-75 minutes. The interviews were transcribed to test my transcription abilities but were not analysed. The reason the pilot interviews were not analysed was due to lack of evaluation reports from the side of the interventions, which would have allowed me to conduct the coding process according to the major thematic ideas. In particular, the lack of evaluation did not facilitate the analysis according to the outcomes the project achieved during its implementation.

Ethical considerations

According to the academic regulations, by the time I submitted my upgrade document in May 2010, there were no ethical issues in relation to the nature of my research methodology or with any of the research procedures which were described as the ones that I would follow for the needs of my study. As my investigations did not include measurements from interviewees (food intake, energy expenditure and anthropometric indices), personal data collection (e.g. name, age and current affiliation), children or young people, people with disabilities or other vulnerable participants, it was officially not necessary to obtain ethical approval from the Warwick University Research Ethics Sub-Committee.

Particularly, my fieldwork aimed to explore anonymously the views of people involved in the organisation and administration of projects targeted to prevent obesity in communities. Due to the fact that the case study projects were named in my research, it was necessary to pay particular attention in order to maintain the anonymity of the participants. Thus, in order to maintain the anonymity and confidentiality of the participants, the identification used in the research document was a description of the general relationship the participants had with the intervention or a general description of their area of work. Coding was used during the analysis which was linked to the name of the project and a serial number. An informed consent form (Appendix 3) was used to inform the participants about the research and to assure them of the confidentiality and anonymity of the data they provided. (There was one participant who held a senior position within a project – whose details and relation to the project can be publicly accessed – and who could potentially be [easily] identified. For this reason an additional informed consent form was sought and written permission from this person was provided in order to use the quotations provided in the results chapter). In the case where names and surnames were used by interviewees within the interview, they were not cited in the related quotations. The community of one case study (BIG project) was chosen to be named in my research since the location of the project was a public feature that anybody could access. The communities interviewed in the HWC project were not named because by the end of my research, the details of the involved communities were no longer publicly accessible data. The random references to some communities under the jurisdiction of some

interviewees in the WfH project were not mentioned because they were deemed of minor importance as references.

Protocol for the pilot interviews and case study interviews

All interviews were arranged according to the availability of the interviewees. All interviewees provided their consent for the interviews to be digitally recorded. The interviews were introduced with a declaration which described the aims of my research and required the consent of the interviewee. The declaration can be found in Appendix 6.

After the declaration which introduced my research purpose, all interviewees signed the informed consent form. In the case of telephone interviews, the informed consent forms were sent to me signed via email or post prior to the interview. During the interviews, I used two digital voice recorders to record the conversations. This also applied in the case of telephone interviews.

Throughout the interview, I put a lot of mental effort into the creation of an ‘easy’ atmosphere which I hoped resembled more of a discussion than an interview. Due to the fact that I carried out interviews with interviewees of different professional status and age, I had to adjust the phraseology and the tone of the conversation to match the profile of the interviewee. It was deemed more appropriate to adopt a formal style with a high-status person from academia or community services. In analogy, it was deemed more appropriate to use a friendlier and less formal style, which however would by no means underestimate the speaker, in the case of interviewees who were of the same age as myself and of relatively low professional status. However, the successful carrying out of the interviews was based on instinctively

adjusting the conversation tone according to the temperament of each specific interviewee in order to create good rapport.

Altogether, 26 in-depth, semi-structured interviews were conducted, excluding the 3 interviews in the pilot study with a duration of 50-80 minutes (HWC project: 12 interviews, BIG project: 6 interviews, WfH project: 8 interviews).

Data collection

In this section I will describe the most significant details of the data collection process for the three case study interventions.

Healthy Weight Communities (HWC)

The first project I contacted was the Healthy Weight Communities (HWC) project in Scotland. Initial interaction with the HWC project took place during the EPODE-network meeting in Brussels, where I met the project manager of one participating community. The project manager then helped me to contact the rest of the communities in Scotland that were participating in the project. After two rounds of invitation emails over a period of two months, three communities responded to an invitation for an interview. In the meantime, interviews were conducted with four colleagues of the project manager within the same community. The project manager arranged the first interviews but access to speaking to further interviewees required tenacious efforts from my side. Interviews were also conducted with people from three communities who responded after three invitation-email rounds (two rounds initiated by the project manager and one directly from me).

Altogether, within the HWC project I interviewed 12 people, ten women and two men. The interviews took place between 7 April 2011 and 18 November 2011, most taking place in July.

Movement as Investment for Health (BIG)

BIG (Bewegung als Investition in Gesundheit: Movement as Investment for Health) is the second project I contacted. In total six informants were interviewed, three women and three men. The interviews took place from 30 November 2011 until 2 December 2011. Interviews were held in German. In particular, four interviews were held within the Erlangen-Nuremberg University in the offices of the Institute of Sports Science and two interviews were held in the Sports Office of the city of Erlangen.

The interviews offered a view of the contextual conditions of Erlangen city, with detailed accounts of typical characteristics of life in Germany. The language used by the interviewees was sometimes specialised/ For instance, the language used by the current project manager who had a background in political science studies, sounded as though it was influenced by her background. This background was evident not only in the language used but also in the kind of explanations provided about the project approach, which were predominantly tinted with political notions.

During my stay in Erlangen, I had the opportunity to visit and participate with the other women in one BIG exercise course in the Pestalozzi Elementary School of Erlangen. The experience was very positive for me and allowed me to gain first-hand experience of what the courses looked like.

Walking for Health (WfH)

The third project I contacted is Walking for Health (WfH). A total of 8 people, six women and two men, participated in the interviews. The interviews took place between 1 November 2011 and 28 November 2011 in the city of Nottingham, Worcester and Peterborough in the UK.

The participants that were interviewed from WfH were employed by WfH when the English Department of Health undertook the funding of the project in 2009, so they had been employed for almost two years and their job contracts were ending at the end of 2011 or early 2012. I encountered some difficulties in approaching the project because it was at a transitional point. Many contact people had ended their contracts and besides there was a general unwillingness from the participants to initiate the interviews. I managed to overcome this reluctance by arguing that it would be valuable to capture their experiences with the current management, which would be lost when their contracts terminated.

Rationale of the data analysis

For the analysis of my data, I used coding strategies from grounded theory (Glaser & Strauss 1967). In particular, I attempted to link the realistic evaluation approach with coding strategies from grounded theory. Grounded theory advises by beginning developing relationships among the categories guided by a *'coding paradigm'* (Glaser & Strauss 1967). The 'coding paradigm' would be the theoretical model which would help to elaborate connections among the properties of the nodes which would lead to the core category at the top of the pyramid, around which a theory could be formulated. This theoretical model of the 'coding paradigm' asks questions

about: the causal conditions, the phenomenon, the intervening conditions, the strategies and the consequences.

Realistic evaluation proposes asking questions about mechanisms, contexts and outcomes. Thus, the theoretical model to elaborate the properties of groups of categories would be different configurations which would take the form of Mechanism + Context = Outcome (CMO). Under this perspective of a realistic approach, I had to analyse *'which combinations of circumstances provide the most compelling possibilities for change'* (Pawson & Tilley 1997: 107).

Speaking in critical realism terms, what I was able to identify through my research rests in the empirical domain. The data about the projects are captured within the 'empirical' domain (Bhaskar 2008). What I heard from the people I interviewed and how I made sense of what I heard from people is indeed not pure: to a lesser or greater degree it is 'theory-laden' (Danermark, Ekström, Jakobsen, & Karlsson 2002: 21) from my inevitably pre-conceived assumptions and theories. What 'actually' happened in the project, the observed events and how this was shaped and experienced from the people I interviewed is located in the domain of the 'actual'. Finally, there is the domain of the 'real' where one can find the generative mechanisms which are neither directly observable nor obvious. Mechanisms are in this domain and they are capable of producing the events or pattern of events (Carlsson 2003b). A grounded theory explains the domain of real and *'…substantive and formal theories will correspond closely to the "real" world'* (Glaser & Strauss 1967: 42). According to Kazi (2003a), the realist researcher accesses the inner knowledge of an intervention by 'interrogation' of practitioners and tries with

the help of abstraction to experiment with different theories in order to identify the causal mechanisms in action.

These common considerations between realistic evaluation and using coding strategies from grounded theory made me confident that I reached 'realistic grounded theories' about interventions to prevent obesity in communities.

Data analysis process

After having explained the rationale of using coding strategies from grounded theory in the data analysis, I will provide an overview of the data analysis process.

Interviews were recorded with digital voice recorders and transcriptions were executed with the exact details of documenting pauses, laughs and delays of response. For the data analysis, the software NVivo (QSR International 2010) was used in order to store, organise and analyse the interview data.

The data analysis started with the first level of analysis which is the open coding. Coding describes the procedure of identifying the major thematic ideas within the data. Thus, it resembles 'labelling' which is what goes on in the text, but not in mere descriptive terms, rather progressing to more analytic terms. The first stage of coding is the open coding (Glaser & Strauss 1967). The open coding stage of the data of each project was performed to the level of line-by-line detail without any pre-conceived categories. For every interview I developed a new set of codes and not the codes developed from the previous interview. This method allowed me to be less pre-occupied with the previous interview and be able to identify different concepts and phenomena.

Hence, new ideas could emerge and would not go astray. This strategy, however, resulted in an unmanageable number of codes (about a thousand for the WfH project, which was analysed first). In the second stage, which is the axial coding, many codes appeared relevant and categories of data were grouped together as they seemed to relate to the same phenomena. Keeping memos according to the suggestions of grounded theory steps, proved to be a very helpful practice (Glaser & Strauss 1967). This practice of keeping memos was useful because it helped me to document the first occurrences of ideas and theoretical elaborations and to capture the first connections among the different families of codes by the time they emerged. By documenting the theoretical connections of my codes during the coding process, I could actually see the first analytical elaborations, which were filling my data with meaning. With the help of the constant comparative method which proposed *'while coding an incident for a category, compare it with the previous incidents in the same and different groups coded in the same category'* (Glaser & Strauss 1967: 106), I was led to a hierarchy of about eighty categories of data ('parent codes'), each including a number of sub-codes ('children codes'). Almost all 'parent codes' appeared to have a sufficient number of 'children codes', which allowed me to assume that a phenomenon with multiple dimensions and perspectives could later emerge. This latter type of analysis describes the final third stage of the analysis, the selective coding, which is about building a theoretical preposition – a story – connecting different core categories of data to each other.

Through the process of 'constant comparison' of the data coded in the same way, clear properties of the core categories emerged which allowed me

to develop a theoretical elaboration. Saturation at the level of coding appeared as interview after interview, similar patterns emerged and new data was easily falling into place within the existing properties of categories, establishing a well validated elaboration of my phenomena within each project; therefore further sampling was not necessary.

Attempting to bear a resemblance to the process to a pyramid, at the ground level were the ‘open coding’ codes, which for every project would be around a thousand (depending on the number of interviews for each project). At the second level of the pyramid were the ‘axial coding’ codes, about sixty to one hundred codes for each project. Finally at the top of the pyramid were the core categories, four to five categories in my case, which were concerned with telling the ‘story’ of a grounded - on the base of the pyramid - theory.

These core categories and their ‘properties’ are elaborated in detail according to the theoretical framework of realistic evaluation, in the form of Mechanism/Context/Outcome (CMO) configurations in the following three results chapters for each one of the intervention case studies.

Reflections on the research process

In this thesis, I sought to make sense of what it is like to use the approach of realistic evaluation in the case of interventions which aim to prevent obesity. The nature of the knowledge I sought was grounded to the people who organised the projects, their opinions, their understanding and what they thought they were doing. Thus the way I collected the data was the essence of the approach I chose to take.

In the methods section, I analysed the type of interaction I had with the people involved in the three case study interventions. Ideally I should have

carried out the interviews being in the same room as the interviewee, which in the case of the Healthy Weight Communities intervention I did not manage to do, due to the considerable travel expenses. The total number of interviews could not be scheduled within the length of a trip or two, since the informants responded to my requests individually, across a period of more than six months. Thus, all interviews, except the first which was conducted in person during a conference in Brussels, were mostly via telephone or teleconference. I was worried that I would not be able to capture the facial expressions of people and establish the much-needed rapport. But I attempted to overcome these specific conditions of not being able to have physical contact with the interviewees by taking more time to familiarise myself with the interviewees. All telephone interviews were considerably longer than those conducted in person. Also I obtained a considerably higher number of interviews. I cannot tell for sure what would be different if these interviews were done in person and if there is a bias towards acquiring less data from the fact that there was no physical rapport. However, my feeling is that not only was rapport established, but was also probably able to gain more data because interviewees felt the process was more impersonal and eventually spoke more generously. The similarity of the acquired data with the other two projects and the affinity of the core categories made me confident that the quality of the data is comparable with the other two projects and any induced bias could not have a meaningful effect on my findings.

Reflecting on the linguistic issues of my research and although I conducted the interviews in languages in which I am certified and I possess a good command, I still believe that I might have lost some subtle meanings

from the sayings of the interviewees. I recognised the difference by the speed and certainty with which I performed the transcription of the Greek interviews in the pilot studies. I briefly note that the Greek pilot study, although an ideal case, could not be used in the analysis due to the fact there was no evaluation data so there was not possibility to connect the findings to specific outcomes. Thus, although I could not use the data of the interviews, I used the intervention as my pilot study to test the topic guide for the interviews and if it fit the purpose. It also helped me to test the procedures and the appropriateness of my interview topic guide.

To return to the linguistic issue, the greatest difficulty was with the Scottish interviews where I clearly overestimated my ability to understand the Scottish accent and particularly over the telephone. I believe I managed to overcome the difficulties of transcribing the Scottish interviews by sending back the transcript to those with an intense accent and hoping that they would be kind enough to make the additional effort to check the transcript against the recordings. I was quite lucky to have this inspection for the interviews with the most uncertainty in their transcription. The German and English interviews came after the Scottish interviews and eventually did not require similar control, but in order to ensure I would not have such difficulties, the interviewees were kindly asked beforehand, to speak in a clear and slow manner. Finally, had I a good command in French, I would have been able to approach other interventions suitable for case studies such as the EPODE network; and conduct interviews in French cities. Although I considered solutions such as conducting the interviews in English or taking a French-

speaking person with me, I rejected these solutions due to the possibility of serious biases that would be induced in my data.

Similarly, by conducting the Greek pilot interviews first, I realised how the facts, which almost instinctively I was able to understand in relation to the context of my country, left me clueless in the case of the case studies which took place in the other countries. Although I was acquainted with the context of Germany due to my eight-year stay there, somehow less with the context of England due to my doctoral studies, the context of Scotland was considerably less familiar to me. In this case, I had to try hard to understand the context by carrying out Internet research, locating Scottish people within my personal circles in Greece who were generous enough to help me; and of course by asking the interviewees for more details.

Finally another issue that worried me was in relation to the Walking for Health project and the fact that the project was at its end, which meant that the people with whom I would have the opportunity to interview were the ones that hadn't left the project yet. Although the timing of the contract terminations of the interviewees might have been a random event, it is also equally possible that this pool of potential interviewees might have been from those who were overly-optimistic about the project. Also, some of them were the ones who would not lose their jobs and would continue to work for the organisation from the position of another project. This fact might have induced a slight bias towards the optimistic side; however the fact that the project did not come up with non-analogous results with the other two interventions, made me confident that this event might not have undermined the value of my final findings.

Closing this reflective section, I would like to stress the fact that during my research I honestly tried to identify and recognise all the potential issues and address them in the best possible way, so as not to undermine the value of the final product. Conducting critical realism work first in my way of thinking, I tried to recognise the *'temporal priority of structure'* (Carter & New 2003: 6) such as the fact that I do not speak French and this was a linguistic constraint. However with reflexive engagement in the situations I encountered, I acted with deliberate agency. As Carter and New (2003) point out, the *'intentionality, cognition and emotionality'* (2003: 5), as the fundamental elements of agency, allowed me to surpass the constraints of structure and transform the conditions in my own way.

Chapter 4: Results of the Healthy Weight Communities project analysis

This chapter presents the results of the analysis of the qualitative data of the Healthy Weight Communities (HWC) project. A description of the project is then followed by the results of the analysis. It should be noted that each section represents the major thematic ideas (core codes) that resulted from the open, axial and selective coding of the qualitative data. As a result, there are sections related to the mechanisms which facilitated and disabled the impact of the project (challenges), the context and its value for the realisation of the project and the outcomes the project achieved, according to the data obtained. In the discussion I will consider the sustainability of the project as well.

What is the Healthy Weight Communities project?

Healthy Weight Communities (HWC) is a project which is part of Scotland's effort to tackle obesity. According to the descriptions of interviewees, the project included particular local initiatives which had the aim of promoting healthier diets and encouraging physical activity in the everyday life of local communities, such as sports activities for schools, distribution of recipe cards, activities promoting breakfast, community gardens, healthy food festivals and running events. HWC was following the approach of the French project EPODE. In relation to EPODE, this is a methodology which was developed in France in 2004 and was based on community- and school-based interventions that took place in France, Germany, Finland and Australia. According to the EPODE-Network website it is claimed that:

'The EPODE methodology enables micro-changes within the ecological niche of children and their families, and of new educational schemes mobilizing local stakeholders within their daily activities. Families and individuals are thus encouraged to adopt healthier lifestyles in a sustainable way' (2012a).

Currently EPODE operates in 293 towns in five countries, including Greece, which participates with the PAIDEIATROFI project in which I conducted my pilot interviews. As previously stressed, HWC is a project that took inspiration from the EPODE methodology but officially was not part of the EPODE network. In particular, the Scottish government's webpage which refers to Healthy Weight Communities (HWC) described the initiative as follows:

'In June 2008 the Scottish Government announced their intention to establish pathfinder Healthy Weight Communities in a small number of areas across Scotland. This was part of the Healthy Eating, Active Living action plan and the main objective was to help them join up existing activities for greater impact, rather than generating new activity. Eight Healthy Weight Communities were selected in May 2009 and their funding continues until March 2011' (2012c)

The Scottish communities which, after submitting a bid were chosen to become a pathfinder Healthy Weight Community, are presented in the webpage of the Scottish government. According to the same webpage, which

cites the conclusions of the Foresight Report, EPODE in France has provided some useful lessons on community interventions. So according to the Scottish government, HWC was a project that would like to see how bringing together disperse activities under the focus of obesity prevention would be more effective than isolated action. In order to test this approach, *'local communities, families and young people in particular'* participated under HWC in activities about healthy nutrition, healthy weight and physical activity, which were delivered by a broad spectrum of local actors (2012b).

At the beginning of the research on HWC back in April 2011, there was a website dedicated to the project, which was no longer available after spring 2012. The project's website was featuring general information about the communities, important project deadlines, the EPODE approach and some Scottish reports about obesity. By the time of my research the only evaluation report that was available was the Interim Evaluation Report (Rocket Science UK Ltd 2010). The report was prepared by a consulting company that was assigned by the government to conduct the evaluation of the project. In this summary report, the selected pathfinder communities can be found, with an initial evaluation of how the programs were set up in each community and the general lessons learned from the start-ups in each community.

Currently, information about the project, as well as its reports, can only be found in the Scottish government's webpage about Healthy Weight Communities, with scattered resources through each council's webpage (2012b). By the time I started coding the interviews and writing the analysis in September 2012, the total Healthy Weight Communities Program Evaluation (Rocket Science UK Ltd 2011) was already available, as well as separate final

reports for each community. However, I had deliberately chosen not to consult these publications prior to finalising my analysis of HWC, in order to avoid them influencing my results. Thus, in effect, the final reports were studied during the synthesis of the current chapter.

During the interview period, I saw HWC in different phases of establishing itself as a community project. In two communities, the project was at an advanced level with a variety of activities, working towards its sustainability. In another community, it was in the starting phase, having just completed a consultation exercise in order to understand the needs of the community. The consultations had the purpose of enabling communities to link the existing services within their community with the actual needs of the community. In the fourth community, the project was on its way to the peak and had obtained funding from additional resources, in contrast to the other communities, which had funding only from the Scottish Government.

Finally, I should note that the Healthy Weight Communities (HWC) project was a difficult project to approach due to its nature. It was implemented in different communities and each community was at a different level of implementation. Moreover, the project consisted of people from different areas of work, who were employed in different positions in the local authorities, some working in HWC in addition to their duties, while others were specifically employed for HWC. Finally, working with the Scottish English accent was also a challenge, as most interviewees had a distinctly different pronunciation from the standard spoken English I am able to understand. Below Table 2 presents the project's informants:

Table 2: List of HWC project informants

List of informants' code	Area of work	Interview type
HWC1	Program manager in HWC	Face-to-face
HWC2	Sports in local authority	Phone
HWC3	Public health in NHS	Phone
HWC4	Program administrator in HWC	Phone
HWC5	Health and mental health in local authority	Phone
HWC6	Neighborhood regeneration in local authority	Phone
HWC7	Project officer in HWC	Phone
HWC8	Project coordinator in HWC	Phone
HWC9	Health in local authority	Phone
HWC10	Weight management in NHS	Phone
HWC11	Psychology with schools in local authority	Phone
HWC12	Project manager in HWC	Videoconference

General context

I will start the analysis by presenting general and brief data about the geography and the location of the communities in the country, in terms of social circumstances, the way the interviewees described the communities to me.

The first community was based in a town of about 9,000 inhabitants. A regeneration area, it was chosen because of its high unemployment rates and because as a data zone belongs to the 15% most deprived areas of the Local Authority, according to the Scottish Index of Multiple Deprivation (SIMD). It used to be an industry zone, which is the reason behind the current high unemployment rates. Projects that had to do with neighbourhood renewal had taken place in this town. The town has three nurseries, four primary schools and one secondary school, a leisure centre, a swimming pool, an ice ring, a golf course, a skate park and a community centre with a coffee area. The area

is a nature reserve, with many play parks and cycle tracks and generally areas suitable for being physically active. Local buses stop early in the evening. Local shops do not have fresh vegetables and fruits, so people need to drive to bigger supermarkets for fresh supplies. Despite this, there are a lot of social events and there is community spirit in the town. I was told that there are issues of crime and drug use so parents are generally worried to leave children out in the evenings. The interviewees often mentioned the lack of continuous attendance of the partners involved in the project, which made the creation of networks difficult. Also, there was a degree of ignorance in the existing community activities. The interviewees did not mention the same variety of existing services as in other communities.

The second community was again chosen, as I was told, because it is among the top 10% of the most deprived areas in Scotland according to the SIMD. However, according to the interviewees, it is not that all areas are deprived, since there are affluent areas as well. The specific area, due to its midway position to bigger cities, served as a point for easily commuting to the city centres, so it developed relatively recently with new housing and community facilities. In the community there existed an intensive culture of partnership working that apparently led to increased engagement of the local authorities to continue funding from council resources. The community included nearby villages in the project as well. I was told that the town had cycle paths but cycling was not encouraged by schools because it is not considered safe and that the town did not have many social events.

The third area was again chosen based on the areas with the highest deprivation according to SIMD; it is for that reason that two areas within the

region were chosen. The area was also chosen because it is an area with some of the highest rates of obesity in Scotland. The selection of the area somehow created problems for the project. The geographic boundaries of the project were not clear because some partners were working for the one area but not for the other. The area was also considered big for the sizes of a project with one area only having 13,000 people or 6,000 houses. The area was also somehow detached. Within the same community the one village from the other considered themselves to be separate according to an interviewee: *'it's a very…it's such a quite divided community as well' (HWC6, line 292)*. Thus, the HWC consultation found that people would not participate in the project's activities taking place in other areas. This fact appears to have an explanation since the area was divided physically with big highways east to west and north to south, which act as physical boundaries separating the areas. Transport was a barrier among participants from the sparsely inhabited villages to the densely populated centre. Nevertheless, the target area has good community planning and a lot of resources and service centres. A known area for its deprivation, it has been the epicentre for a lot of community interventions.

The fourth community consists of the three council wards of a city, which were chosen due to the high rates of deprivation. The city has been an industrial site in the past; however when the industries left, the unemployment rates increased to high levels. The city is acknowledged for its poverty and its high levels of health inequalities. There is high activity from the sports departments which has set up many sports activities. The interviewees told

me that there were many services targeting the disadvantaged in this area with a good partnership background among services.

All of the communities appeared to have a strong network of health services and public health activities and in some communities, a background in partnership working pre-existed, as will be analysed below. In the following section I will refer to the context of the communities and its main factors of influence according to the analysis of my data.

Existing culture of partnership working

In the following section I will analyse the most important contextual circumstances that were identified in my analysis.

One central theme which emerged from the data analysis, was the existing partnerships and the present culture of working in partnerships within different local authorities in a community. There were partnerships that pre-existed and good working relationships across different agencies such as the NHS or the local council. This culture emerged from the descriptions that the interviewees provided in relation to the submission phase of the bid to the Scottish government. According to an interviewee working in health in the local council, the process of identifying key people and trying to 'test the grounds' started long before the bidding process to the Scottish government.

Different agencies which had interests in this initiative came together in the community to discuss the details of submitting a bid in response to the invitation sent by the Scottish government. This type of partnership working among local services has been promoted and cultivated for a long time according to an interviewee working in the sports council:

'…the council ....has....supported that way of working for a long time so it is probably more of a historical thing, it is just that. It wasn't a completely new way of working.' (HWC7, line 643-644)

As a result of the existing culture of partnerships, colleagues had knowledge of different departments and community services. Apparently, the need to work across different sectors of the community and creating partnerships for different reasons in the past had created a culture of partnerships and a climate of good working relationships across different authorities. This culture had created an organisational memory within services which made them able to cooperate and create effective partnerships. This environment facilitated the participation of partners in cooperative groups to work on new ventures.

HWC appears to be entering the existing structures and trying to tie them together. The project is not about creating a new body but linking the work of the existing partners. A project manager describes this dimension as follows:

'…our key actions so far have involved everything from community events to joint planning to support other organisations to be more aligned and (along) healthy weight and to education, to ….a wide variety of approaches. So that…I would say is in essence as a project and that is how we deliver.' (HWC12, line 38-41)

A further element which emerged from the interviews with another community was the realignment of existing services by bringing the focus to

health. This process however, in order to be meaningful according to an interviewee working in psychological services, definitely needed some time to flourish within the established culture of health work;

> *'It took time ...to go round this, the other stakeholders, the other partners and to listen to what they were doing and acknowledging the work, I suppose it was already going on...' (HWC11, line 331-333)*

Interviewees provided concrete examples of what it means to link with partners and building partnerships in actions such as the local NHS, voluntary bodies such as the Scottish Heart Foundation, community projects such as 'Active Travel' or neighbourhood renewal programs, and national campaigns such as the 'Change4Life'. On the question of whether the HWC project creates an umbrella scheme which connects the existing programs, the holistic character of the partnership emerged, which goes beyond a mere functional character such as bringing many programs under one umbrella:

> *'…that was in partnership with a project called....'Do More Drink Less' which is an alcohol reduction project ...what they have been looking at is....finding other things for people to do apart from drink so one thing was you know obviously increase physical activity so links very well to our project ....' (HWC7, line 422-425)*

This approach managed to create synergies among different activities. An example of this effect can be seen by the interviewee below who highlighted how they combined existing activities with the activities of HWC:

'…you combine the recipe cards and you get the opportunity to promote physical activity and 'Active Schools' programs etc. as part of those resources that goes on the pupils…' (HWC2, line 452-453)

The current context that is characterised by austerity and cuts in public spending would certainly create the need and the conditions to work, both in adding value to the existing services and in focussing on prevention rather than treatment. This is obvious from an interviewee working in health in local authorities who discussed the need to work in partnerships under the light of this context:

'…in terms of the current public sector climate where we are actually encouraged to work more closely and to look at ways of building on what we already have ...we have reached the stage where we need to start adding value on what we do. It is no longer just acceptable to perhaps deliver one activity…We have to focus on prevention more than dealing with the results so perhaps it's time and context that we now get the national direction for local authorities or public sector organisations that we have to work in that way…' (HWC9, line 299-307)

In one of the communities, the project coordinator encountered lack of awareness among local people about existing activities, raising an issue of effective utilisation of public resources. Lack of marketing was attributed as the reason behind the lack of awareness among the people of the community:

'…there is an issue between raising awareness, obviously people weren't sure what was on, although there was lots on…' (HWC8, line 128-134)

The fact that diverse projects came together as part of a building partnership process, creates the whole community approach that HWC pursued. The case for successfully bringing different partners together from different services to work for the aims of HWC was based on the existing culture of partnerships within different local authorities in a community which pre-existed as a way of working.

Existing culture of public participation in community services

It was clear from my data that the existing broad network of health promotion services and the existing rich background of activities targeting children and families have created a culture of extensive participation in community projects from families of all social groups who have children. Thus, although HWC focuses on deprived areas, this focus is not the emblem of the project and thus does not prevent the project from attracting a mix of social groups with the common interest to improve their children's health. One example of this generalised attitude can be seen from the passage below from a project coordinator:

'...all the parents want the best for their children so it is not just, just about.... you know we have run three years now and is definitely half and half ...families of lower socio-economic but then it would be the... other extreme you know families that are you know quite,

quite fortunate, well off from what I can tell and (future) jobs and professional jobs.' (HWC7, line 736-742)

Below, another interviewee described what families believed and how they would be highly reactive and alert to whatever they felt would be beneficial for their children:

'…most people want to do the best they possibly can for their families, for their children, they want the best for them, so anything that they feel will help them achieve that, they will grab with both hands …' (HWC6, line 444-447)

Bearing in mind that even in the areas of deprivation, not all people are deprived; it appears that it is natural to have a mix of people. The common denominator of the project appears to be its emphasis on children, schools and families. So the project was able to aim at children and thus attract families or convey messages to families through their children at school. Also by taking advantage of the extensive participation of the public in family-oriented projects, HWC managed to attract families of different socioeconomic levels into the project's activities.

Level of public health discussion

The responses I received were infiltrated with vocabulary from the public health area, which expected since the interviewees had a background in public health, It is surely more than positive that advanced notions from public health area were used by interviewees with other backgrounds too. It is indicative of the public health awareness how an interviewee working in

neighbourhood renewal, with a background other than health, understood the variety of factors having an impact on weight:

> *'A lot of it went back to the Foresight Report, which had a.... diagram in it about... the influences upon weight and my background is biology in fact, so the fact that right in the middle of that is the Krebs cycle, you know the fact that energy in and energy out... makes the difference, the actual diagram that showed all the influences, everything from you know advertising on television to what is going on in schools, those influences I found very interesting anyway and suddenly realised that what we were doing in the way of green spaces would actually influence weight'. (HWC6, line 58-67)*

There was often reference to the Foresight Report, providing indications that, upon this report, the project had based its conceptualisation on healthy weight and prevention of obesity. An interviewee below, in essence, views that this separation of energy in and energy out is reflected in the services of a local authority, which are divided into dedicated services for physical activity and dedicated activity for nutrition. According to the interviewee below who is working in health in the local authority, it is proposed that the activities, the way they are currently provided from the services of local authorities, appear divided in nature. Thus they should come together and be streamlined into one common message. In essence, it appears as if the interviewee here offers a new conceptual basis, which could support the main objective of the project itself which is to join up existing activities:

'…as I looked around I saw we have got quite dedicated activities targeting physical activity and dedicated activity targeting nutrition and my ambition would be … these two approaches have to come together in order to tackle healthy weight'. (HWC9, line 225-228)

What is presented appears to be the shaping of an outlook which constitutes a real-life application of the Foresight Report into the community. Moreover, this approach appears to be more advanced because it has the capacity to make analysis and synthesis together. It can analyse and consider the plethora of drivers affecting obesity by involving diverse community services in its responses; but at the same time, it can synthesise and orchestrate a holistic approach to address the entirety of the obesity problem. This level of discussion and conceptualisation from interviewees reflects the current level of public health discussion in Scotland. I could summarise by saying that there is a general maturity and sophistication in the manner public health practice is conceptualised by most interviewees.

In relation to the vocabulary and the tone of the narrative during the interviews I very often encountered a specific pattern of narrative which included a constant process of self-asking. This method of narrative appeared to reflect a real process of asking ourselves what could be done differently. This approach appears to be a sort of practical technique in trying to find how to work differently within each community. As it emerged from the beginning of this analysis, communities were free to experiment and discover their own way of 'trying to work differently' and as a result of the 'different' backgrounds and perspectives involved, this process was approached 'differently' from each community:

'…some of the things are 'are we actually getting to the right people?' 'Are we getting into the people that we really, really need' or 'the people that are engaging with us are the ones who already lead an active lifestyle and they are looking for reassurance' …Did they recognise the brand? Had they made any changes because actually that is what we wanted to find out.' (HWC1, line 327-333)

The process of asking oneself appears to carry on in the way the various activities are implemented within the community; according to the interviewee below working in health, it is to be responsive and adjustable to the reality met each time within the people of the community:

'…we have to look for ways of actually reaching people, we do not necessarily come to the local events or the local venues so we certainly have to find other ways of doing that.' (HWC9, line 258-260)

This kind of narrative I believe is another point, which supports the existence of a general sophistication in the public health practice in the country. This constant process of experimenting and asking oneself how to do things differently, on the one hand, proves that the level of public health practice in the country is well advanced; on the other hand, it acted as an enabling mechanism by increasing the ability of the project to develop advanced responses in relation to tackling obesity and promoting healthy lifestyles in the community.

Aims of the HWC project

After the analysis of the main contextual factors I will continue my analysis on the aims of the project and how they were perceived and elaborated by the interviewees. The importance of understanding what the aims of the project were and how different communities elaborated those aims in a different way, is major in order to understand more deeply the character of the HWC project.

The main aim of the HWC project was eventually to bring partners together. This concept emerged very early in the interviews and appears to be a prominent concept of the project. A dimension of this concept could be seen by the importance that was given by most interviewees by looking at the current work and trying to link existing services and existing partners who hadn't previously worked together. In essence, as the interviewee below working in sports in the local council indicates, this was about 'capitalising' on the existing investment of communities on services:

> *'What is done well is what actually brought together partners to actually capitalise on investment, actually bringing people together that actually potentially in the past hadn't.' (HWC2, line 131-132)*
>
> *'...in certain areas two or three different partners were actually trying to get the same health outcome …by doing it individually.' (HWC2, line 238-246)*

A feeling was conveyed to me by the interviewees who were employees of the public sector, that there was some sort of waste in the resources spent. Instead of using double resources there could be an effort to

bring resources together since the outcome was now viewed as common. Thus, what is achieved by the project is a common view of the needs they would like to address.

Bringing partners together is presented as both the target and the outcome of the project. A useful dimension to examine is the reason and the meaning of this process. The same perspective is presented in relation to the side of the delivery of the project. One interviewee working in health in the local authority below indicates:

> *'I have always felt that we needed to ...bring in the services together, actually deliver more than one message… we can no longer just target one activity… We need to bring them together, so for healthy weight we need to start working across services and across partnership activities …we need to have a sports development team giving the message about nutrition...' (HWC9, line 316-325)*

Bringing together the areas of work appears to be important in order to deliver a more combined and united message to the public. Reflecting on the way that each service promotes health by targeting one area and activity and providing separate messages, the interviewee below discusses how the message of healthy nutrition should be promoted by sports development services as well. This indicates the holistic approach that the project is attempting to take. The project is not about giving a contextually isolated message in relation to healthy nutrition or physical activity. In contrast, by

creating partnerships and integrating services, it is about making people consider health in a broader and more holistic way.

Perceptions of the projects' aims

This section discusses how the different communities perceived the aims and objectives of the project and if they coincided or conflicted with the aims of the project as they were provided by the Scottish government (2012b).

Reflecting on the project, it soon became very clear to me that the different backgrounds and disciplines of people involved in the project were reflected in the way the interviewees talked about the project. For example those working in public health put their emphasis on creating a healthy culture and mentality within the community around weight:

> *'I suppose one is creating a general culture where people are able to talk about healthy weight…' (HWC3, line 202-203)*

Similarly, another project manager interviewee with a background in health described the objectives of the project through the lens of a 'health promotion' emphasis:

> *'the project is very much a community approach … The project takes a healthy weight, healthier lifestyle approach, it doesn't (teach) that we are all about healthy weight, we speak about healthy weight but the community at large, we are taken as a healthy lifestyle project.' (HWC12, line 33-36)*

In contrast, an interviewee, who had a background in project management, stressed upon the project's processes, such as reporting and delivering according to specific objectives. In this case the language is operational and free of the notions of a specific discipline:

> *'Six objectives. We have to use and develop a social marketing campaign and ... provide a social marketing campaign, …work in partnership with and add value to partners' work, we need to take a whole focus approach, we need to provide, get ourselves a local leadership …with that be political and local champions and we need to contribute to the overall evaluation and share the learning from our work… the sixth objective, the promotion of healthy weight…' (HWC1, line 21-30)*

An interviewee with a background in psychology discussed the project's intermediate and short-term objectives in a language more entrenched in psychology. The interviewee spoke about perceptions, motivations and barriers to describe the project as a healthy lifestyle approach:

> *'Increase health-enhancing behaviours, increase confidence in relation to health and well being, improve partnership working to achieve a healthy weight community and develop a sustainable healthy weight community approach…. We were looking at trying to identify motivated strategies, approaches just health-enhancing…*

activities, well-being, looking at barriers to that.' (HWC11, line 256-263)

As expected the language used appears to be different and the dimension that is stressed is different in each interview. The interviewees appeared to see the project through the lens of a certain philosophical stance and understanding, which was influenced by their discipline and their area of work. This fact emerges as both an opportunity and challenge for the project in intersectoral work because the project has to build on the strengths of people who come from different professional worlds. In conclusion, despite their different perspectives, people are perfectly capable of understanding what this project is about and their understanding coincides with the targets of the Scottish government.

To summarise, in order to use a realistic evaluation vocabulary, I would say that the project utilises the context of existing relationships and the culture of partnership working, as a fertile background in order to bring partners together with diverse perceptions and professional areas. This acts as an enabling factor, which produces the outcome of a project which works differently, aligns existing services towards a holistic focus to health and creates new perspectives to community work.

Mechanisms with an enabling impact on the project

In the following section I will go deeper into my analysis to examine the mechanisms that I identified and according to my framework of analysis, I believe acted towards enabling the impact of the HWC project.

Working differently

In the previous section the realisation of a different model of working emerged as the result of bringing together partners from different professional areas and backgrounds. This different model of working appears to emerge as both an outcome and a mechanism. Thus, in this section it will be shown that the realisation of a different model of working acts as a mechanism, which enables the impact of the project.

The realisation of a different model of working emerged as a central theme and that was reflected in the way the interviewees spoke about the need to work differently or that the community is already working differently as a result of a project which brought different partners to work together. In relation to my impression that these two notions are quite connected for the function of the project, I performed a cluster analysis in NVivo between the similarities in words of the node of 'bringing partners together' and the node of 'working differently', which resulted in a very high Pearson's correlation coefficient (≈0,9), confirming the impression that those two notions were often mentioned simultaneously by interviewees. The fact that each community was free to implement the project according to the given guidelines was also part of this 'different' character of HWC. The term 'pathfinder healthy weight communities' highlights that the project had to find different paths and test if these would be more effective than the existing health promotion approach as reflected below:

> *'…this is the opportunity to try something new and kind of really give us that freedom ...to do almost what we wanted with that... Instead of following the traditional health promotion approach that*

obviously hasn't been really effective in the whole child obesity issue.... this project was trying to take a slightly different approach trying something different and seeing if this something different had an impact.' (HWC7, line 668-675)

It soon emerged that the project had created a merged approach and changed the perspective of working in the local services, clearly creating and producing the need to work differently in the future. This appears to be the result of having brought together different partners from different areas of work in the project as analysed in the previous section. I will use the perspectives of three interviewees working in three different areas: Psychology, Weight management and Neighbourhoods regeneration. For the interviewee with the psychology background, the different approach taken from the particular community is reflected, to see health promotion from the perspective of agency, meaning not the imposed external structures but the capacity of the individual person or the individual community to change lifestyle. The way to do this was through examining the existing patterns of behaviours, what people already did that is positive and health enhancing. Therefore, inventing new messages was not deemed necessary but it was indeed necessary to support and motivate existing healthy behaviours. According to the same interviewee, their community survey indicated that people do know what healthy behaviours look like and actually most people possess healthy habits. The interviewee also spoke about looking at what people are doing in relation to their health and trying to support positive behaviours by removing the barriers.

The interviewee with a background in weight management emphasised on how the whole issue of weight management was seen differently through the work of the project which managed to make weight management an objective of many partners who should act together:

> *'…. for the first time partners such as the local authority are actually looking at weight management and weight as an issue. Previously weight has been looked at as a kind of health issue rather than something that local authorities kind of look at. … It is very positive that other people are looking and seeing that they have a responsibility in a wider context.' (HWC10, line 22-26)*

Finally, from the interviewee who works in neighbourhood renewal, it emerged that the perspective in a community service which does not directly involve the objective of health changed with involvement of the HWC project. The basic objective in the job of the interviewee remains the same – to improve community infrastructure – but in the framework of the HWC project the perspective of the job is transformed into contributing to making people in the community be more physically active by improving and making the local infrastructure more attractive.

What appears to be happening after bringing different partners together in each community is twofold: the different approach that was attempted with the HWC project was both shaped with the interpretation that each community made of the objectives, in accordance with the different background and area of work of the involved partners. But at the same time, the HWC project not only changed the partners' job duties but also transformed how they actually

perceived their job duties after they came together to work for the project in their community. Additionally, as pathfinder communities, they were permitted to find their own way to implement the objectives of the project – as they were provided by the Scottish government – either in the way they understood them or the way it was possible within their resources.

To summarise, the HWC project acted on a background that involved a culture of partnership working. A different model of working was possible with the HWC project, which acted as an enabling mechanism in order to produce a new perspective of working in the local services and the realisation of the need to work differently towards obesity prevention in general in the community.

Clear organisational structure

Another important element that was evident to me was that the project had a clear organisational structure that included a steering committee or board in each community providing support and feedback in terms of higher strategic leadership over operations. The management team was reporting to this committee and in some communities there existed a line manager as well for the day-to-day issues.

A clear distinction between strategy and operation was apparent in the interviews. There was a strategic level at which a steering group or project board decided the direction of the project. This group would hold regular meetings to overview progress. The program manager would coordinate everyday operations and the links to other partners within local authorities.

A clear organisational structure would transmit an image of strong leadership to the external partners, and as a result, it would increase the

capacity of the project to fulfil its targets. This image could potentially increase the ability of the project to engage the involved partners. In other words the implications of strong leadership would be an increased capacity to create engagement to the targets of the project. According to the interviewee below working in sports in the local authority, this factor could make the project 'work':

> *'...having a strong project leader and a strong project board that are committed from the start and recognised this, this project can only actually… work if its partners were engaged and engaged properly.' (HWC2, line 227-232)*

Having a clear and well-defined management structure emerges as a mechanism which enables the impact of the project towards increasing its capacity to engage partners.

Listening to the community

Another element to the approach taken by HWC was that it took time to listen to people of the community and then design the project's actions according to people's needs. To illustrate this, the quotation below is what an interviewee stated, working in the psychology services of the local authorities:

> *'…people then maybe feel that they are part of what is happening within their community that is being acknowledged …that's important…' (HWC11, line 298-299)*

The approach involved both trying to engage with the community and understand its needs and at the same time paying particular attention to be accessible to the community. This strategy appeared to have an enabling impact on the function of the project.

The interviewees described their efforts to approach their community in various ways. A project coordinator described their approach as trying to give 'ownership' of the project to the community. Another project coordinator explained that it was important to be integrated into the community. Also the fact that they were recognisable by the people of the community as the face of the project was important for the establishment of links and good relationships with the community.

Another indication of the genuine effort of the project to uncover the real needs of the community and identify any barriers to its engagement, was that it conducted a consultation exercise in each community. During this consultation the management team literally went and knocked on the doors of people in the community and carried out a type of survey in relation to their weight, their habits and their needs. Some interviewees described how during the process of contacting two to three hundred people, there was a 'real engagement' with the communities.

Summarising, the project took steps to approach the community with an open ear and this acted as an enabling factor towards uncovering the needs of the people and creating a sense of engagement with the community.

Determination to make a difference

A consistent finding among interviewees of all four communities is the determination to work on the project. This eagerness to work on the project

probably could be the source of the aspiration to come close to the people of the community. This determination to work for the project was often coupled with a determination to make a difference, as stated by the program administrator below:

> *'…it will be actually getting out there and doing something, involving the public basically and then start to make a difference!' (HWC4, line 243-244)*

Another interviewee working in public health in another community phrased it in another way:

> *'…we are quite keen to work through communities and so on and so forth because we really are in touch with local people in the area.' (HWC3, line 301-302)*

For a project that most interviewees undertook on top of their existing duties and which created only a minimal number of temporary job positions with a restricted time frame in which to work, this was a noteworthy finding. This determination to work was apparently transmitted by the HWC team and enabled the impact of the project by increasing its capacity to engage the community.

Brand of HWC and social marketing

One of HWC's objectives was the application of social marketing and the communities had the freedom to develop their own social marketing strategy. For this reason some communities decided to change the project's

name and promote their own branding (for example ‘C’mon [name of the community]’, ‘Together for Health’, ‘Healthy Futures’).

Many interviewees referred to the impact of the brand in terms of its power to attract participants and mentioned its importance in various parts of the interviews. Some pointed out the project’s logo (which could differ in each community) and its properties of being fun, colourful and vibrant. Fun and enjoyment were ‘running through’ the activities of HWC. Interviewees described some activities which took place, highlighting this ‘fun’ nature of the project and how the project’s branding activities brought ‘light’ into everyday life, especially in some communities which were lacking social activity. The interviewee below mentioned the importance of the project’s vibrant character in a country with a cold climate and extended darkness during the winter. Physical activity was branded as ‘having fun’:

> *‘during the winter months …I am just showing people where they can walk you know a couple (up) around the park is better than nothing …and just having good fun together, that’s you know that kind of underpins everything that we do try to do showing that...choosing the healthier lifestyle doesn’t have to be boring ...it is actually good fun and families can actually enjoy activities together.’ (HWC7, line 461-469)*

A project manager of a community described the HWC logo and that they worked with schools to promote the message of the project in order to reach families in the community:

'I think our brand had the biggest impact. We have a little sunshine, a football and an apple and the sunshine is about feeling good, the apple is eating well and the football is physical activity... so if you go to any of the schools (on their healthy notice boards) our logos are there … we provide the materials but the teachers they go on and they do it… all goes through the schools. And that's been fantastic for us because we are getting to the families that have children in our area.' (HWC1, line 174-183)

In one community interviewees talked about taking advantage of the early 'buzz', meaning the initial enthusiasm and the impetus that a new project can create in order to motivate and take along the community. In another community the interviewees stressed the importance of the vibrant brand of the project and that it brought fun and enjoyment.

At the end of all interviews I asked for the one word which best described the project for each interviewee. The responses to this question were in the majority words related to the cheerful character of the project, such as 'fun' (twice), 'vibrant' (twice), 'positive', 'green', 'exciting' and 'future'. The other words were 'challenge', 'human agency', 'additionality' and 'brave', which were apparently stressing the approach of the project, which was about people and their power to change and create synergies within the existing structures.

Thus the use of social marketing and the branding of the project in a pleasurable and joyful way appeared to be a mechanism with an enabling impact on the project because it created an impetus and enthusiasm to the communities, with colourful and joyful events, especially during the winter

months. In that way it achieved wider recognition within the community and increased its capacity to reach more participants.

Terminology around obesity

The HWC project teams avoided using words or branding about reducing overweight prevalence or obesity. It is suggestive that according to one project manager, the project conducted a qualitative consultation and after this it decided to change the name of the project from Healthy Weight Communities to something neutral in order for the communities to not link them with the notion of weight reduction:

> *'Another part of the success has been the change of the name, because obviously we were nationally called the Healthy Weight Communities project ...and actually speaking to groups and people and families, healthy weight communities doesn't go off the tongue easy and it gives different connotations to whoever you speak to, you know you say I am fat, you see I am fat you know, so I had this kind of negative kind of connotations to it… and that I think made it a little bit more palatable for people… it's a bit more positive.' (HWC8, line 295-304)*

Many interviewees said that one of the main barriers among people of the communities was that people thought that the project was not relevant to them because they did not have any weight issues. Interviewees told me how participants do not realise their weight problems and do not identify their lifestyles as unhealthy. Therefore, participants do not associate themselves with needing to change their lifestyles. Moreover, they do not want to be

stigmatised. One interviewee said that they received complaints from insulted mothers who thought their children were stigmatised and that participants probably felt that their parenting skills were put under scrutiny. It was often claimed by the participants that the project and the interviewees themselves did not want to 'dictate' to people and that 'judging' people for their lifestyle choices would be very unpleasant. The project manager below strongly depicts this tension between seeing that people have a problem and wanting to avoid making the problem clear to people. Although clinical measurement would demonstrate to people that they had a weight problem, the project endorses a positive attitude, which promotes healthy weight without critiquing the existing situation of people:

> *'...they don't think the messages that we are giving them actually apply to them so they just tell you 'oooh we already lead a healthy lifestyle' and you look at them and you look at their children and you are judging them which is terrible cause we often say we are not measuring people but you are looking and you thinking 'Really?' … we don't call it obesity or overweight you know, we use healthy weight as about the only... you know because we also need to get the message over to us, it is obesity prevention what we want...it's people to be eating a healthy balanced diet so … we're a healthy community…' (HWC1, line 304-312)*

The interviewee also explained that the project does not adopt a mechanistic approach, measuring up weight and height of people. In contrast, it employs a 'healthy weight within a healthy lifestyle' message for all the

community without targeting or stigmatising those who are obese or overweight. Similarly, another project coordinator says that this project is for the whole community, although it could be that a more direct approach should be adopted in relation to the overarching target of the project, which is to reduce obesity in children:

> *'...it is about healthy lifestyles and making small changes to make children healthy, we have been taking a more soft approach … that is something we are discussing at the minute to be a bit more (.3) more clear about, you know, this is about trying to reduce child obesity but because we have been so far that whole community approach ...you know I think by saying that we are about child obesity then people who maybe don't feel weight is an issue in their family, they switch off and go on, that is not for us.' (HWC7, line 578-582)*

Summarising, the project intended to use any terminology relevant to obesity or to create connotations relevant to obesity. This strategy is indicative of its intention not to dictate and judge people on their lifestyle choices and of its will to adopt a holistic community approach that avoids stigmatising people and promotes a healthy lifestyle message. This strategy emerges as a mechanism with an enabling impact on the project because it reinforces its capacity to engage more people who have weight problems but would not however participate in an obesity-targeting project.

Change needs time

Interviewees discussed the timeframe of the project very often and the majority commented on the relatively short duration of the project.

Most interviewees seemed to be confident regarding the capacity of the project to achieve its objectives, but not within the timeframe that was provided. This is how it was framed by the project manager of one community:

> *'I think its …effective … I am not sure, I am not sure that it would be totally effective within the timeframe that we have. I think two just over two years is not long enough.' (HWC1, line 520-523)*

The project manager of another community gave the perspective that what the project tries to achieve is a 'social change' within the context of 'real life'. Although, according to the interviewee, they managed to create a positive discussion about the project, this is possibly a very early stage of a long process which proceeds slowly and this is how change is happening within real society:

> *'…but we are making small changes to that and social change takes a lot of time yeah?' (HWC12, line 466-467)*

The interviewee working in neighbourhood renewal commented in the same line of social change and in particular about changing behaviours of people. It appeared odd for the interviewee that a project was expected to change the behaviours of people within three years and showcase the impact from this change on their weights:

'I think it could do with another three years really…eem possibly even more …I mean what kind of length of time do you need to measure whether or not people's behaviour has changed and whether its having an effect on their weight? I mean that is [laugh] that is not a three-year project.' (HWC6, line 525-528)

Some interviewees, like the previous one, gave their estimation of time which a project of such nature would take to be effective. They pinpointed the duration of EPODE in France, which runs for a decade and upon whose basic principles HWC was initially thought. So for the interviewee below, with the public health background, the fact that the Scottish government is not continuing funding in the model of long-term funding, like in France, provokes political explanations.

'I have been disappointed really. The project finishes in March 2012 and if you look at the EPODE work and this is based on the EPODE work. EPODE took at least a decade eem to show some measurable health outcomes so I am disappointed that the money is stopping from next March… I don't know what is behind it, obviously some sort of government driver…' (HWC3, line 128-133)

The same perspective of long-term duration, probably a decade, is also given by the interviewee below, who is working in mental health and admits that the project, with its one-and-a-half year duration, is only at the beginning of creating the' cultural swift' needed in order to deal with obesity:

'…it is good to be a complete culture change but which will probably take a bit longer, probably a good ten years you know at least to see that change happens, basically the project is at the very start of changing that kind of cultural shift.' (HWC5, line 125-128)

All interviewees appeared in agreement that the project is addressing the behaviour of people and as such what it is trying to achieve is a cultural swift, a social change, which cannot happen with short-term initiatives, regardless of how promising it appears to be. In that respect, the allowance of more time would emerge as a factor that would help the project to have an enabling impact by facilitating the cultural swift of the community towards adopting healthier habits.

Being flexible

Another mechanism which emerged from the analysis was that the project was plastic and flexible to change and adjust according to the needs of the community. The consultation exercise during the early set-up of the project helped to inform the team's understanding of the local needs and conditions. An example of why the consultation exercise was useful is provided from a project coordinator who described how the project realised that the children were going to school without proper breakfast and organised a breakfast campaign to raise awareness about the value of a nutritious breakfast.

The project appeared to have a strong determination to target those not coming or the ones that were really hard to reach. A particular focus was

evident from the interviewees to explore why people do not join, what hinders and what supports participation. This attitude of exploring the local conditions and trying to adapt to the needs of the community, is the opposite of trying to implement a given project curriculum to the community irrespective of whether this curriculum suits the targeted context.

To summarise, the focus on serving the needs of the particular context of each community, which was informed by the consultation exercise, reveals that the HWC aimed towards having a flexible and customised approach that acted as an enabling mechanism, enhancing the ability of the project to uncover the barriers and drivers for community participation to the project.

Challenges/Mechanisms with a disabling impact on the project

In the following section I will analyse the mechanisms which emerged as having a disabling function on the project. In relation to the language used from the interviewees some patterns were quite characteristic in most communities. Almost all interviewees talked about difficulties modestly. They merely reported a fact and did not really stress the degree of difficulty involved and the effort that they had to put in, in order to deal with these difficulties. An example of the way difficulties were discussed is provided below:

> *'...we are in a bit of a fortunate position that, all other healthy weight communities have…are a little bit more established in what they have done… so basically we have their hindsight [laugh]. We can learn from any positive or negative experiences they had.' (HWC4, line 400-403)*

The interviewee whose community had encountered significant delays in starting the activities of the project, described how their community had the advantage of using the lessons learned from the more advanced communities. In conclusion, interviewees appeared to have an enthusiastic attitude and be focused on the positive side, highlighting the gains from each difficulty and challenge.

Partners with different mentalities

In the previous section an analysis was made of what it meant for the operation of the project, that partners from different professional worlds came together to work. This element appears to entail some difficulties as well. Thus, a main theme of challenges was the different cultures involved and the different ways of thinking that were brought together with HWC. In order to give an example of the nature of this challenging element, I will use the quotation from a project manager below:

> *'We have also had problems where the partners are looking for different things and the health board and the council have different cultures so… initially people in the council were saying to me 'why are you not doing anything?' or 'all you're doing is planning' and people in the health board were saying to me 'we need to do more planning [name of the interviewee] we can't go on to action.' (HWC1, line 157-161)*

Another project manager, who had a public health background and was an existing senior level employee, focused primarily on the knowledge gap

which existed among different partners and the tension between professionals:

> *'…for the first time some of these people were meeting people from other groupings so some of our operational partners were exposed to these strategic thinkers and vice versa and with that brings different values, different understanding, different knowledge base, different priorities and this is where the problems began.' (HWC12, line 137-140)*

The interviewees told me that they overcame these challenges by educating colleagues and adjusting the level of the discussion to meet the level of each partner. Particular importance was given to being genuine during this process and trying to handle the complexity of managing personal relationships with honesty and openness.

Summarising one can see how the same mechanism of bringing together professionals from diverse backgrounds acted as a disabling factor and created the outcome of understanding and knowledge gaps. The fact that the project overcame this challenge with educational sessions and focused on communication work, acted as an enabling factor to reduce the lack of understanding.

Lack of continuity in partners' participation

The challenge faced by one community was inconsistent attendance at the set-up meetings with members from the local services, resulting in a lack of continuity in the progress of the project:

'…there wasn't as much continuity as partners intended although we had partners from the same services attending it, maybe a different person, so kind of continuity, kind of lacked.' (HWC8, line 229-231)

On top of those difficulties, this particular community also faced changes in the composition of the steering group, adding to the lack of continuity in the core of the project. As a result, this community faced difficulties in its effort to build a coherent understanding of the project amongst the partners of the local services.

The difficulties were imposed from the structural conditions, which as I was told, were addressed by allowing more time to allow the conditions to mature.

'…that's important that time is taken for that to happen.... It wasn't just something that rushed in, we need to do this, this and this ...I think that's not what has evolved over and is evolving over a period of time.' (HWC11, line 342-345)

Summarising, the interrupted attendance and the lack of continuity in the participation of the partners from the community authorities was a mechanism with a disabling impact, which resulted in lack of understanding and created knowledge gaps and further delays.

Geographical boundaries of the project

A challenge related to the existing structures that had a disabling impact on the project was the geographical boundaries, as they were set for

the project. According to interviewees, the project had focused on a certain city or town whereas the involved partners had a wider geographical area under their responsibility. This geographical allocation was creating difficulties and bringing the project team in the odd position of having created the partnerships and the networks and then not being able to include the relevant areas into the project. In other cases, the schools were applying to participate in HWC, but the project was in the unusual position of having to refuse, because the school area did not belong to the HWC authority. Interviewees appeared to be particularly worried by this technical problem and distressed, setting an issue of equitable allocation of resources and fair distribution of the local community services to the whole area:

> *'...in terms of time and dedication for this project, you can only obviously, you have to obviously to divide … the same amount of time in terms of equity, you know making it equitable across the whole of [name of community].' (HWC8, line 356-358)*

In conclusion, it appears that the geographical allocation of the communities' areas was a mechanism with a disabling impact in the operation of the project and the sentiment of the involved partners. In some communities the chosen HWC areas did not always have clear boundaries and when they did, this was in conflict with the local authorities which had other areas under their responsibility. One reason for this might be, as one interviewee told me, the undertaking of the project to target the area with the highest deprivation, more particularly the ones belonging to the highest 5% of deprivation according to the Scottish index of Multiple Deprivation.

Outcomes

In the following section the positive outcomes of the HWC projects will be discussed as they emerged from the interview analysis and the identification of the mechanisms with an enabling impact. I should note that for most of the outcomes there is no clear association which specific mechanism produced each outcome or if many mechanisms acted synergistically to produce an outcome.

Interviewees referred to the project's impact on the communities. Beyond the evidence that the attendance numbers were increasing which would generally lead to considering the project's events successful and the fact that the project's branding was widely recognised, there were a number of other indications of the project's impact and successful outcomes in the community. According to the interviewees below, the project has been effective in changing the lifestyles of many families and improving the nutritional patterns of a number of school children:

> *'…they have changed their lifestyle and their kids are more active and they are eating veg and they have tried the recipes and they thought it was great and their kids are not mocking the five step healthy pack lunch. Their children want fruit now they didn't want before.' (HWC1, line 334-337)*

Interviewees admitted that the project increased the usage of green parks for physical activity and cycling to school, whereas with the wide distribution of recipe cards in schools it improved healthy cooking among

families. Again, it is obvious that the channel of going through school children has been particularly effective in order to access the whole family.

There was also a soft indicator of success which was the beginning of a process of familiarisation of the community people with healthy weight. However interviewees were not eager to appoint this as an outcome of the project, since by allowing time there was better absorption of health messages and people became more comfortable with weight discussion and felt less stigmatised to approach the project. The element of time emerges as a central factor for the project.

Another interviewee mentioned the social contact that the project was able to deliver due to the fact that all members of the community who were interested in the health of their children were joining their events. For that reason the project was very important for the social cohesion of the community and the fact that people from different social groups could come together to share common health messages and receive the benefits of the project:

> *'…the matching of these groups, these groupings in our community can all have benefits for the long term future …not just for healthy weight but for a social perspective as well.' (HWC12, line 191-195)*

Finally, another dimension in relation to achievements of the project, so far according to other interviewees too, was the part of strengthening the existing community work through the creation of partnerships and the creation of more effective networks:

'I suppose in terms of... 'has it been successful in weight' I think that is far too soon to say ...I don't know if we can possibly say that, I think in terms of success of the project, the success I think has been in partnership working.' (HWC11, line 479-481)

Summarising the outcomes of the project, HWC had an increased attendance in the HWC events and its brand was widely recognisable in the community. It was reported that some families changed their lifestyle and acquired healthier habits and the diet patterns of school children were improved. An increasing familiarisation with healthy weight was noticed as well as a sense of strengthening the social bonds of the community through the events of the project. Finally, a central outcome of the project was its ability to strengthen the existing community work and reinforce the culture of partnership working.

Becoming sustainable

According to interviewees an effort to integrate features that would contribute to the sustainability of the project well in advance could be discerned. So the sustainability of the project would not be looked into at a certain stage of the project, but was put in the planning process and in the strategic design of the project right from the start. Even in the community where delays were encountered, by the time I held the interviews, the community was still at the consultation exercise phase and I saw that there was a clear will to set up the project with sustainability in mind. According to a program administrator:

'Whatever we do…has to be sustainable, they don't want to put on an activity or a class for it to benefit people for the funding to run out six months down the line and for them to pull it away and that does not provide long term…that's not a long term solution.' (HWC4, line 405-408)

Some ways to recognize this principle was by systematically and consciously integrating the messages of the project into the political agenda:

'…there is a very strong possibility that the health and well being partnership will keep healthy weight communities on the agenda…' (HWC6, line 559-560)

The project manager of another community said that they worked systematically to integrate the message of the project to the political agenda of their health board and council and they built a mechanism of regular reporting within the community to control progress on their healthy weight plan. So the project manager was able to get into the process of minimizing the reliance of the community on the project, by allowing them to continue without depending on the project manager's presence. Another project officer stated the following:

'…healthy weight is something written in everybody's action plan and that is something we are starting to see, you know a lot of our partners have it in their plan, you know the child obesity it is... you know that is top of the agenda for more people so that is something that is important for the sustainability.' (HWC7, line 809-812)

The project managers considered what would happen to the achievements of the project the day after the project would end. Thus, the effort was towards the incorporation of the project's message to the agenda and the action plan of policy makers.

The project's messages were elaborated, as I was told, in terms of finding ways not only to integrate them in the policy agenda but also to link them to different sources within the community too. There was consideration to find pathways to sustain the messages of the project *per se* in order to continue to exist for the recipients of the project. There was an effort to sustain the social brand of the project within the community and continue to make it accessible to the public through the NHS, the local library or other community venues, which could be used as 'hubs', focal points actually, from which messages could continue to be disseminated. As stated by one project coordinator:

> *'We are looking to trying to get that developed as a hub that the local people can access and the messages are gonna still be there.' (HWC8, line 692-693)*

Another way that interviewees told me they handled the sustainability vision of the project was by building on the capacity of the community. Actually, the very core of the project, which is building partnerships and forming a common focus on health, is strengthening the capacity of the community. The interviewee below who works in sports in local authorities told me how this capacity building creates the prerequisites for sustainability:

'...there will be more and more of a push towards making the program sustainable through work with partners actually looking at ways to increase community capacity.' (HWC2, line 478-480)

According to another interviewee, the project was investing in capacity building by ensuring there was enough training and education on the project's healthy weight for employees within the community. In practical terms, the continuation of the project's impact would be sustained by building capacity through training people to social marketing, a very important deliverable of HWC. It was stressed that the project had systematic records of the procedures followed and would deliver a specific manual/guidebook. The documentation of the project's stages is an expected step and official deliverable of the project.

Finally, a very important element for sustainability is the existence of a project coordinator, of somebody who has the responsibility of bringing partners together and is the face of the project. It is very important that this need is recognized, not only in the advanced communities but also to the communities who had encountered delays and were at the beginning of setting up the activities of the project. It also highlights again the incorporation of sustainability in the early set-up of the project. This is what I was told by one local authority employee in the area of weight management:

'I still believe that there is a role for a coordinator. For somebody who would have the responsibility for ensuring the communication and ensuring the networking and bringing things together. I think that if this doesn't happen then it will just be a continued case of

people working in isolation. And there won't be somebody who can have an overview, and see clear all the different things and bring them together. Because then, you know without that it becomes no one's responsibility. You are just then working on your own part of the bigger picture, without necessarily seeing the big picture.' (HWC10, line 233-242)

The function of this role is described on the one hand as the connecting factor among the partners that the project asks to bring together and on the other hand this position is necessary because it will provide the overview and the accountability that partners would not return to working in isolation. It actually acts as the reference point to call on for the task of creating and maintaining partnerships. The function of such a role could be very nicely encapsulated in the words of the interviewee below who reflected on what this role does, characterising this position as the 'glue', meaning that this post is the adhesion element, the bonding factor that helps partners stick together:

'...to have somebody coordinating this kind of approach as a professional to be that glue to bring people together to do some of the actions like the hands-on work I think that is really important… and certainly a (fund) that is involved for a year, I would be looking for more funding and one of my key priorities would be to keep somebody in the post to provide some leadership and drive and cohesion about the project, I see that as critical.' (HWC12, line 493-497)

As a result, mentioning the funding as a crucial element in order to preserve this post in place is expected. For this reason, the interviewee told me that this community is working towards trying to ensure the resources which would permit integrating this staff in the community resources and creating a permanent character to function in this position. However, this community had managed to ensure additional funding from the local community, a fact that allows this to be differentiated, in relation to the other communities, perspective. Both interviewees mentioned above characterised the project as 'long-term'.

A project coordinator emphasised the importance of the personal contact with people and being approachable as very important to the success of the role. What could also be questioned here is if the interviewee is speaking in general or if what is happening here is a possible comparison with community services and their existing *modus operandi*. If the standard pattern is that services show an impersonal face or if they do not go out of their offices to contact and listen to people of the community then what the interviewee can showcase is the actual difference and a new model of work, which is based on building engagement with the community:

> *'You are actually out there so as to speaking to people, being personable, not sitting behind the desk and writing your action plan all the time...' (HWC8, line 320-322)*

To sum up, the mechanisms which had an enabling impact on the sustainability of the project and would facilitate the sustained operation of the project should entail the following elements: early integration of the so-called

sustainability elements in the primary phases of the planning process, the incorporation of a healthy weight remit in the agenda and action plan of policy makers, the identification of pathways to sustain the messages of the project and the linking of those messages with existing disseminating channels, capacity building with an emphasis on training and education activities, development of handbooks and guidance documents and finally assurance of a small funding in order to preserve the post of a project coordinator.

Summarising the operation of the HWC project

The HWC project operated in a context entailing a sophisticated public health understanding and an advanced network of health services. Within services there was organisational memory in partnership working which enabled the creation of effective partnerships among different services of the community in order to create a holistic approach around healthy weights. The project tried to have a different approach and let the pathfinder communities implement the objectives according to the perspectives, the educational and the professional background of the people involved in the communities' services. The project tried to actively listen to the communities' needs and followed an 'energetic and colourful' social marketing strategy, avoiding any terminology around obesity. The project took time to let the messages become embedded within the community and create the necessary cultural shift.

The project encountered difficulties in terms of bringing partners together with different mentalities and a lack of continuity in their participation came across in their actions. The setting of geographical boundaries was also problematic for the project: it did not correspond to the project's area of

activity. The HWC project managed to create social change by strengthening the existing community work and by noticing the increased participation and familiarisation of people with the healthy weight remit.

The sustainability of its achievements appears to be ensured through the successful identification of pathways to link the project's messages to existing sources. It also assured funding to preserve the post for the project coordinators in order to serve as the link factor for preserving the partnerships and the face of the project in the community.

Chapter 5: Results of the analysis in the 'Movement as Investment for Health' project

In the previous chapter with the help of the realistic evaluation approach I examined the Healthy Weight Communities project. In this chapter I will examine the BIG (Bewegung als Investition in Gesundheit) [Movement as Investment for Health] project. In the beginning I describe the project briefly and how the qualitative data was obtained. Then I present the results of the analysis. It should be noted that each section of the analysis represents the major thematic ideas (core codes) that resulted from the open, axial and selective coding of the qualitative data. As a result, there are sections related to the mechanisms which facilitated and disabled the impact of the project (challenges), the context and its value for the realisation of the project as well as the outcomes that the project achieved. I finally examine the sustainability of the project and in particular how sustained its effects appear to be.

What is the BIG project?

The BIG project takes its name from the German initials for 'Bewegung als Investition in Gesundheit', which means 'Movement as an Investment for Health'. According to the BIG website it is claimed that the project's aims are the following:

> *'The goal of the BIG project is to create more opportunities for women in difficult life situations to partake in physical activities, and to benefit from the positive effects of movement. The practical challenge of the BIG project is the following: to reach out to those with the greatest need for physical activity, but who have the least*

opportunity to access it and the health benefits associated with it.'

(BIG Project 2012a)

The project included physical activity classes such as aerobic, swimming, yoga, Pilates and dance in the community premises. The Institute for Sports Sciences and Sport in the University of Erlangen-Nuremberg and its scientific team which directed and operated the project until 2008 produced the BIG Manual (2011) which explains how to implement the project step-by-step. According to the BIG website, this manual can be a quality assurance tool for the project management in communities interested in implementing the BIG approach (BIG Project 2012a; Ruetten & Wolff 2012).

This manual, which is written in German, was at a stage of final touches when I conducted the interviews in December 2011, nevertheless I was handed a draft copy from the interviewees at the university. Basic sources of public information about the project are the BIG Handbook, the project's website which provides information about the principles of the project and current information about the current operation of the project, such as newsletters, timetables and contact details. There are also links to approximately twenty scientific publications and references to the project.

The BIG project was funded by the German Federal Ministry for Education and Research in the framework of a national prevention research program for difficult-to-reach populations. According to the BIG manual, the target group of the BIG project was women who were unemployed, living on benefit allowances, single mothers and migrants or refugees from Eastern Europe or Muslim countries. In 2008 the operation of the BIG project was planned to be undertaken by the local authority and the project is currently

under the direction of the communal sports office. The BIG project, apart from Erlangen which was my case study, currently operates in nine other cities within Germany. In some German regions such as Bavaria the project was applied by local authorities under the brand name BIGff and in North Rhine-Westphalia and Mecklenburg-Vorpommern regions as BIGGER (BIG Project 2012a).

The activities of the project were developed in accordance to the feedback provided by women of the target group who were taking part in the cooperative planning process. The cooperative planning process which was organised by the scientific team of the university, involved community stakeholders such as representatives from local authorities, insurance funds, sports clubs and political representatives.

The scientific team of the BIG project worked in collaboration with the WHO Regional Office for Europe and became a case study for the promotion of physical activity in disadvantaged groups in a WHO publication, with the title 'Socioeconomic determinants of health - Voices from the frontline: The BIG-Project' (the link to the publication does not exist anymore, but the BIG project was included in another WHO report as an example of community intervention: World Health Organization, 2010). The scientific team claims that they sought to put into practice the guidelines of the Ottawa Charter (BIG Project 2012b) and the various intervening actions of the project are described in terms of the Ottawa Charter principle that is served. Therefore, at an individual level, the BIG project promotes the development of personal competences to live a healthy lifestyle through physical activity courses, swimming courses and the operation of an approved educational training

regime course to become a physical exercise instructor. At a community level, the BIG project with its women's breakfasts and other collective meetings tried to support community actions. In terms of fostering health-promoting environments, the BIG project worked towards opening difficult-to-access facilities, such as the swimming pool for Muslim women or taking advantage of school gymnastics halls during the evening hours. At the level of policy and organisation structure, the BIG project addressed the reorientation of public health services which is advised in the Ottawa Charter, through integrating all relevant stakeholders in the development of the project, and through the establishment of project offices which will ensure the sustainability of the project.

Data collection

In total six informants were interviewed, three women and three men. The interviews took place from 30 November 2011 until 2 December 2011 in Erlangen University and at sports authorities of the city of Erlangen. Interviews were held in the German language. The pool of informants can be seen in Table 3 below, as well as their coding and the type of interview that was conducted with each one of them.

Table 3: List of BIG project informants

List of informants' code	Area of work	Interview type
BIG1	Research assistant	Face-to-face
BIG2	Research assistant	Face-to-face
BIG3	Research coordinator	Face-to-face
BIG4	Project Director	Face-to-face
BIG5	BIG coordinator	Face-to-face
BIG6	Sports Office director	Face-to-face

The interviews, along with the in-depth descriptions of the BIG project operation, also offered a rich view of the contextual conditions for the city of Erlangen in contrast with the other cities where BIG currently operates, with rich accounts of typical German characteristics. The language used by the interviewees was sometimes very striking, more specifically that used by the current project manager, who had a background in political science studies. This background was evident not only in the language used, but also in the kinds of explanations provided about the project approach, which were predominantly tinted with political notions. Also the language used in some basic documents about the BIG project, such as the BIG Manual, although co-authored by other colleagues within Erlangen University, appeared to have a distant similarity with the explanations provided orally in the interview.

The following sections present an analysis of the BIG project, as derived from the interview data. The citations from the interviews which are presented below are a combination of word-to-word translation from the German interview with the necessary inter-lingual restorations in order to ascribe and interpret the German meaning into the English language.

Context of Erlangen: a model city on display

In the following section I will present some contextual conditions, which I identified both from the interviewees and from my personal impressions as relevant to my analysis. These contextual conditions were the background upon which the mechanisms of the project, which will be described in the following sections, acted to produce or not to produce their effects.

Erlangen is a city located fifteen kilometres from Nuremberg. It belongs to Bavaria, the federal state in the southeast part of Germany. Erlangen has

about 105,000 inhabitants and is home to the University of Erlangen-Nuremberg. It is also dominated by the vast headquarters of Siemens AG Company and a flourishing business network for hundreds of other smaller companies and research facilities.

Considering the demographic, political and social background of Erlangen, it should not sound strange that all interviewees stressed the high educational level of their city's inhabitants. Erlangen has almost the lowest long-term unemployment rates in the whole of Germany and is among the cities with the highest purchasing power per head in Germany. The extracts below are remarkable for their description of Erlangen. In the first extract the interviewee argues that the thriving prospects of Erlangen rest in its strength to attract the most talented and educated of foreigners and its ability to offer high quality of life:

> *[…it is also a city that has many foreigners but not so much the poor foreigners in the ghettos but the educated ones, the ones who work for Siemens, who work for the University, so that means that the acceptance of foreigners is relatively good and that is of course very important for the project…] (BIG3, line 332-336)*

Apart from this social background, Erlangen is characterised, according to the Director of the Sports Office, as a city friendly to sports: *'Erlangen… is the city of recreational sports' (BIG6, line 158).*

Most probably, the city has a more positive image of migrant population since its migrants are of higher education and income levels. It is a city with local authorities and councils who possess increased reflexes and are

particularly sensitive and aware that something should be done for the health of these target groups. Thus, this context appears somehow fertile in order to initiate the BIG project which requires the mobilisation of the appropriate resources within the community.

As the interviewees told me, in the framework of general sports development planning, the city of Erlangen had made particular efforts to identify the groups which are not physically active. In this respect, the sports authorities made several programs for women of lower socioeconomic status, especially the ones with migrant backgrounds. As the interviewee below indicates the case of Erlangen is in contrast to what happens in other communities concerning integration of migrant population:

> *[…in Erlangen all the parties agree that they have to do integration work and this is a positive thing whereas in Regensburg the political climate is in such a state that there are established (populist or civil) parties which play now and then with the cards of racism] (BIG1, line 238-241)*

I suspected that another deeper reason for the existence of this culture appears to be the connection of integration with the existence of more general social reflexes. According to the Project Director, health promotion for socially disadvantaged groups in a wealthy society was not a matter of strict allocation of resources but a matter of social values, such as justice and fairness.

Also the Sports Director of the community sports office illustrates the possession of similar sensitive social reflexes of justice and fair health promotion from the local services and that it is their task to provide services

for the disadvantaged. Apparently the existence of local services with such values reflects the general culture of the local society.

In this context, in 2005, the Project Director through the university of Erlangen decided to initiate a submission proposal for a model-project for health promotion with physical activity measures for women with migrant background, which was finally chosen to be granted funding from the German Federal Ministry for Education and Research in the framework of a national prevention research program for difficult-to-reach populations. Summarising one can see that the BIG project was introduced in a city with low unemployment and high living standards. There was a background of sports promotion and health-related programs. Apart from this, the city was sensitive and possessed social reflexes in relation to the value of integration of migrant populations.

Level of public health discussion

In the previous section I analysed the specific context of the city of Erlangen. In the next section I will examine the level of public health discussion in the country, the way it was reflected in the interviews.

It appears that the project was not as straightforward to implement in terms of both its delivery and its public acceptance, despite the positive background of the city of Erlangen. The Project Director, who possessed both an academic overview of the public health discussion, as well as an overview of public health practices, said that he thought that the level of public health in Germany was different compared to other countries and that he tried to change this situation in his country. The quotation from the Project Director

below indicates quite clearly that BIG is a pioneer project which even more importantly appears quite progressive and forward-thinking in its concept:

> *[…in contrast to England or Canada where there are a lot of opportunities in promotion right in the area of health promotion or to do research, there are practically no opportunities in Germany for promotion] (BIG4, line 32-35)*

In relation to the issue of expansion and the national implementation of BIG, the Department of Health financed the expansion of BIG that operated under the name BIGGER in Uecker-Randow of the Mecklenburg-Vorpommen region and under the name BIGff in Bottrop of the Ruhr area, in order to prove the concept in one of the poorest regions of Germany with the highest percentages of unemployed population. The Project Director appeared to believe that the project could operate sustainably in these cities as well, although the implementation of the project was reported to encounter many difficulties. According to the data offered by my other interviewees the project was able to operate in other cities as well, although the level it reached in the target group and how this level compares to Erlangen was not part of the present research.

Mechanisms with an enabling impact on the BIG project

In the previous section I presented an overview of the context in which the BIG project was initiated. In the following section I will examine the mechanisms that I identified and according to my framework of analysis that I believe acted towards facilitating the impact of the BIG project.

Impact of the Project Director

In the following section I will discuss the impact of one person on the project and why I believe the set up and the implementation phase of the project emerged to be unbreakably connected to the personality of the Professor of Sports Science and simultaneously Director of the Institute of Sports Science in Erlangen-Nuremberg University (referred to as Project Director).

It became clear to me that the set-up of the BIG project was the product of a strong agency, which initiated and brought change by starting the project. As I often heard from the interviewees, the Project Director was a well-known person with a big influence in the local community due to his status and his successful career as a professor. He had also successfully managed other projects in cooperation with the local community:

> *[…that is the reason why the partners came with this, because they had trust in this person.] (BIG2, line 181-182)*

His personal influence appeared critically important not only in relation to the officials of Erlangen, but also with the wider scientific community involved in the project and people from other universities, as well as from the World Health Organization., Using both his influence and the trust that others had in him, the Project Director effectively handled the disagreements which arose with the external scientific advisors when the BIG team reached the decision not to conduct randomised controlled trials as a means of evaluation. The words below come from a senior research coordinator who cooperated with the Project Director in these early stages of BIG:

[…our scientific partners were very angry about this, we had not only the WHO but also Sports Medicine Frankfurt and Health Economics in Munich, who would do the components of the evaluation. They said no RCT [randomised controlled trial], then no science [laugh]. Thus, there was always some tension but…[the Project Director] remarkably got through, and we did as we thought it would be right …] (BIG3, line 182-186)

The Project Director claimed that because he had put a lot of serious thinking into his field and possessed more than twenty years of experience in working with institutions external to universities and putting scientific knowledge into practice, he was in a position to be an expert in evaluation:

[I have been working since… beginning of the 90s, therefore more than twenty years in the area of implementation science, and my habilitation [professional training as demonstration for academic competence] for instance was in the area of applied science, therefore I had always practically worked with institutions outside the university and science and I had always reflected on the process] (BIG4, line 70-74)

What is evident from the above is the confidence that the Project Director possesses in his beliefs. The project Director had such a strong personality and most importantly such a strong sense of self-confidence derived from his professional experience that he was able to override authoritative international organisations and other leading German institutions.

In relation to the type of management followed during the early stages of the BIG project it appeared to have a 'one decision-maker' type of management. Apart from having the decision-making authority, the Project Director was also the face of the BIG project towards the public.

Although the management of the project belonged to the Project Director, it emerges from asking the interviewees about the teamwork level within the university team, that there was good communication and high levels of cooperation. This fact indicates that the Project Director also possessed the skills to mobilise his team.

Another point, which verifies that the Project Director promoted a climate of effective cooperation in the team, was that part of the sustainability plan of the project was for him to gradually move into the background in the later stages of its implementation:

> *[....I was for sure the initiator and also very much the project manager but during the process I was very much going into the background because this role was undertaken by others… I had only accompanied the whole process but my role had transformed during this process which was part of the sustainability strategy] (BIG4, line 21-26)*

From the analysis it surfaced that the personality and the status of the Project Director was the initial capital of the project. One factor that contributed to the successful set-up of the BIG Project was the personal political capital of the Project Director. Not only did he come up with the initial idea of an innovative project but he was also able to use his influence in order

to mobilise the necessary resources from his network. The Project Director was a person who possessed political capital, an extensive network, leadership skills, public acceptance, experience and expertise in his field, which he activated for the benefit of the project. These characteristics emerged as elements that facilitated the implementation of the BIG project.

Social catalysts

In this section the effect of women who acted as social catalysts to the project will be analysed as well as how this factor emerged as a mechanism with an enabling impact on the project.

It should be noted that the project was open to all women. Every woman was invited and there were no inclusion or exclusion criteria. However, the target group was reached by directing the information channels accordingly. The women who acted as social catalysts through their extended network of friends and connections could spread information about the project.

More specifically, the ability to reach the women of the target group was based on having managed to identify key-women that were able to create a multiplying effect in terms of bringing more women to the project's physical activity courses. These women usually had an extended network of friends and contacts, which meant that they were socially active and could act as an attracting pole to the courses. Often those women had a relatively high education level, which appeared to be very important in terms of their ability to understand more quickly and trust more easily the motives of the BIG project. Therefore, on the one hand these women were apparently more social and open and thus easier to be approached by the staff who tried to identify

women to participate in the cooperative planning process in the early stages of the project. On the other hand, these women were better equipped to understand the project and its objectives, to develop trust in it and then engage personally with the staff of the project as to how they could help bring new women to the project.

The impact of the women who acted as social catalysts and their influence on the process of recruiting participants for the physical activity courses is principal for the operation of the project. The basis for this is because it is in effect the only way to reach the target group. The people of the project and the women who acted as social catalysts used word of mouth (the so-called 'word of mouth propaganda' as they told me in the interviews) channels of promotion. Many interviewees stressed that the project could utilise neither traditional methods of marketing, such as flyers, posters, and radio advertisements, nor modern platforms such as social media, the way they would be used by a health promotion community intervention. The effectiveness of this channel is illustrated by the differences which were noted in the cities that did not manage to identify women with an extended network or did not use them efficiently and in contrast relied on the usage of flyers:

> *[We have other locations which have only few women or not the right women because they relied too much on the flyer and then they had ten participants and in the next year they had eight and then this is too little whereas the locations with the networking women had tied them from the beginning to sports… in Bayreuth, a city in north Bayern, they started and already in one year they have*

a hundred participants, because they had found the women with a good network.] (BIG2, line 626-632)

By relying on the usage of flyers and advertisements, the target group would not turn up due to ignorance and lack of interest and apparently there was a need for more information on sports activities which are focused.

Summarising, the identification and 'recruitment' of women for the project who were encouraged to function as social catalysts, acted as an enabling mechanism which increased the ability of the project to attract the women of the target group and increase the participation in the exercise courses.

Working with the participatory approach

In the following section what will be showcased is how the participatory approach of the project was a mechanism which enabled the impact of the project.

The participatory approach is above all the basic line of the BIG project. The project sought not to do something 'for' the target group but to do something 'with' them. The extract below from the current Project Manager emphasises this difference:

[…we need to involve the women from the beginning and see how to develop choices not for [emphasis] but really with [emphasis] on them. So let's say not the professional courses in sports clubs but to really see what barriers they have and which barriers we can overcome] (BIG2, line 97-101)

During the interview a current research assistant described to me how the project identified the first women of the target group in detail. What was evident from the description provided to me was that the scientific team used a hands-on approach. In particular, the women from the scientific team went by themselves to occasions such as the typical 'women's breakfasts' in Germany, which are organised regularly as a socialising opportunity among groups of women, or in facilities where single mothers could be spotted, and tried to approach them and hint whether there would be any potential interest for physical exercise courses. The scientific team tried to motivate involvement by using small participation fees of €25. As a result of this effort, some women showed interest and were willing to open the door to the scientific team to access occasions such as Turkish weddings, where effective advertisements could be made. Thus, with frequent personal contacts and last-minute telephone reminders, the scientific team managed to secure the first women for the 'cooperative planning' – as the direct translation from German would be – for these participatory group meetings. The extract below encapsulates the sensitivity and the individuality of the project which won each woman on a personal level *[…well, in the beginning you have to win every single person really on a personal level]* (BIG1, line 542).

The participatory approach included the operation of "round tables" in which representatives from all involved parties were invited to discuss the realisation of the details of the BIG project. The "round tables" were taking place every six to eight weeks throughout the year. The project was designed to take place in three different settings, which were the neighbourhood, the sports club and the workplace. The project possessed the resources to

finance its activities and that was a decisive parameter in order to bring the key stakeholders to the table of discussion. So participants came from all three sections and included representatives and stakeholders from local sports authorities, sports club members, the mayor, local council members, representatives from political parties, experts, the Project Director and other university members and last but not least the women themselves (who later acted as social catalysts as was analysed previously). There was also a higher working group with representatives and stakeholders from all three settings together to streamline progress in all three settings.

This kind of process was able to uncover the real needs of the target group in contrast with how the people in charge imagined it would work for them. The direct result of these consultations was very low-cost exercise classes (usually €1-2 per course), which were operating in local school facilities during out-of-school hours, during convenient times for the participants, while most of the courses offered child-care services. One of the most popular courses was the 'women-only swimming' which took place in local swimming pool facilities which, were not visible from outside and had women-only personnel:

> *[…'it is better to have morning courses because in the afternoon our husbands are coming home'… 'then we are at home with children and husbands and it is family time', therefore afternoons is out of the question for them for physical activity courses. This would be something that we wouldn't have thought of in the case where we had just simply organized for them] (BIG5, line 85-90)*

So the first function of the BIG project was to recognise women of the target group, work with them in a long cooperative process of identifying their needs in terms of physical activity and work out the arrangement of availability of facilities, convenient hours and child care and use this process as a means to empower them and to make them trust themselves:

> *[…this is why we plan with them for three hours physical activity courses where three experts would sit together and in ten minutes they would be ready] (BIG3, line 255-258)*

The process was authentic and meaningful and organisers were conscious of the difference of 'just organising' activity courses for women. Its purpose was not only to identify the real needs of the targeted group in terms of physical activity. The purpose of this approach was that precisely by going through this participatory process the women of the target group were enabled to feel engaged and equal in the decision-making process. They were becoming familiar with decision makers of their community and felt that their needs were important as evidenced in the extract below:

> *[... they felt they were taken seriously, yes? This was the core of our approach. They sit around the same table with the mayor, with the decision makers and they are fully equal partners … They have noticed that in the sessions they had equal rights] (BIG3, line 240-244)*

In the cooperative process the women of the target group felt important, having the feeling that something was planned and taking place for them and that the system believed they had value too.

The creation of that perception among the women of the target group was important in order to build trust from their side and to make them believe and trust this process as something genuine and this was reflected on the results of the qualitative evaluation, which was conducted with the women of the target group. It should be taken into consideration that the resources were available and this process was eventually only seeking to fulfil the needs of the target group in the best way possible.

Summarising, the project used a hands-on approach with the candidate women of the target group, which acted as an enabling mechanism producing an increased ability to win the women which would participate in the cooperative planning sessions. The cooperative planning group approach that brought together stakeholders from different areas together with the women of the target group to discuss and elaborate their needs and the required circumstances for physical activity, enabled the project to produce an increased understanding of the real needs of the target group. In parallel, the cooperative planning group approach showcased the existence of the resources and the care of the project towards the women of the target group, which acted as an enabling mechanism towards creating a climate of trust and a familiarisation of the women of the target group with the community decision-makers. Finally, the women felt empowered to influence the decision making process.

Challenges/Mechanisms disabling the impact of the BIG project

In the previous section I examined the factors that acted as enabling mechanisms and facilitated the impact of the project. In the following section I will analyse the mechanisms that I identified as having a disabling function on the project. Before this analysis I would like to reflect on the language used by the interviewees to describe the project because I believe it influenced the way the interviewees perceived the project and the way they handled the objective with its implementation difficulties.

In relation to the language used by the interviewees I came across a wide variation in the expression of the project's difficulty. Specifically for the set up process, a senior research coordinator who worked in the project during the first three years characteristically described it as 'chaotic' (BIG3, line 29). This characterisation implies how the path to the realisation of the project was uncertain and without order.

I understood that even for the Project Director, who possessed the vision of how to navigate an intervention for this target group, it was unclear what this project would turn out to be like. The statement below is characteristic of the uncertainty which existed at the beginning of the implementation. However, the handling of this uncertainty and the ability to proceed with the project plan is part of the effective leadership that was apparently demonstrated by the Project Director.

The feelings of having dealt with a difficult project which encountered and went through many difficulties during its realisation phase were more intense in the language used by the interviewees located in the community

[…it is a very, very difficult work area, you can perhaps understand that] (BIG6, line 157).

One reason for the intensity in the perception of BIG being a difficult project could be due to the fact that the employees in communal authorities were to a higher degree prescribed to solve the very practical issues and arrange the very details of the availability of facilities. Another reason for this perception could be that people in the academic field are more used to encountering the 'unknown' and having to work conceptually with the 'unknown' in contrast to the people in the community who might be more accustomed to working with given tasks and procedures.

Summarising, the perception of most interviewees was that they were dealing with a difficult project and this is clearly reflected in the language which they used to describe the project.

Frequent change of personnel

A factor that produced a disabling effect on the project was the frequent turnover of personnel. It was said that the challenging situations of the project had an impact on retaining the personnel involved in the early stages of the project in the university. This was partly due to the status of contracting partners at the university, which was on a short-term and low-paid contract basis. However, according to the insights provided by interviewees from the most senior personnel of the university, the intense character of the difficulties encountered in the early stages of the project were factors which led to frequent turnover in personnel.

Changing the existing environment

In this section I will analyse the challenges associated with the existing structures with which the project was confronted during the implementation and in what ways these had a disabling impact on the project.

From the beginning of the interviews it was made explicit to me that the BIG approach was not about making a mere physical activity intervention for the target group. As I was told the BIG project was about creating the environment and structural conditions which would be friendly for health promotion and especially for the promotion of physical activity. Therefore, the challenge was to change the existing structures and achieve new ones.

In the way the interviewees elaborated the difficulties associated with the implementation of the project, it was evident that it was about going against a well-established structural system, which functioned in a certain manner and this was what the project eventually sought to change. The Project Director refers below to an example of changing the existing structures and how demanding this process was:

> *[…the relevant existing structures ...stand opposite so that means I must change them and this is extremely difficult and … they are in the hands of persons so I will give an example … 'What do they want in our sports halls?' 'No, if they are not in a club, it is not possible' because they stand in the previous structures, the sports halls are available only for the sports clubs…] (BIG4, line148-154)*

As I came to realise, in Germany, there is a long established background of clubs as a form of an organised approach to engage in various

hobbies. Thus, the imposed structure for the BIG project is the operation of numerous sports clubs and the existence of a kind of generalised sports club culture, not only in the particular region but also in Germany in general. Such imposed structures set contextual restrictions to the initiation of a project that would seek to promote sports out of the existing tradition of organised sports clubs.

The operation of clubs is based on paid participation of the members and on regular participation in the activities of the club. In many cases the communal sports facilities are ceded to clubs, thus access to them is guaranteed in this case through registration to one of the sports club. During morning hours communal sports facilities are occupied by schools. This long established practice has created a strong culture which opposed any effort to use sports facilities independently of sports clubs. According to what I was told, in Germany there is a strong culture of doing sports through organised clubs:

> *[This is only a structure or a culture in Germany because you know the sports clubs there aren't so intense elsewhere in Europe as in Germany…] (BIG6, line 161-163)*

Thus, sports clubs imposed enormous difficulties on the project because especially for the women of the target group who were coming from non-German cultures, this model of operation appeared peculiar.

According to the Project Director, every effort to initiate action which needed to go against the existing structures, was met with resistance from the involved actors, as was also any attempt to change a situation; thus ways

must be found to break these formed arrangements. Under this account, another interviewee below explains why refers to an example from a community service that was offering physical activity for children and refused to offer physical activity for women:

> *[…another colleague …who did not want to make any physical activity for women. He considered it his main task to make physical activity for children. And we had always argued 'Look, if you get the women then you will get the children too, children and the women, these are not far away'. But this was our rationale, for them they were two different worlds and they asked for what reason they should spend their time with physical activity promotion for women when their main task is physical activity for children] (BIG3, line 154-161)*

Another difficulty imposed by the existing structures was the preconceived way of working and operating in the community services. The stakeholders and the involved actors who participated in the cooperative planning were representing their part and their current *modus operandi*, which had been formed this way apparently by given circumstances and interests.

As a result, the BIG team came against a background of competitive thinking exactly due to the fact that this status quo was maintained by actors who tried to balance their different interests and as a result, there was unwillingness and resistance to change it or to try new ways.

At some point the project found 'walls', which practically meant that the circumstances did not permit more space to go forth and the structural

situation stood more powerful than the agency, as the interviewee describes powerfully below:

> *[…we had always observed that when the decisive person does not function, then it doesn't go ahead. Then maybe you cannot do it when somebody blocks the project in an organisation, then it has to go out of the organisation …sometimes there is no other way, this is the decision maker! And when the decision maker says 'no' to the project, then this is really a wall.] (BIG3, line 162-170)*

The existing structures were creating difficulties due to cultural barriers as well. I perceive the cultural challenges that the project faced as an example of structure against agency, in the sense that it was set as an existing cultural status quo, which was not open to other cultural stances. This is powerfully illustrated below because it shows the two different worlds and it illustrates how going against a cultural structure is like going against a wall, especially in relation to key persons acting as decision-makers:

> *[Where we had to fight a lot ... we have a women-only swimming time ...and what was important there was not to be visible when the women were there to swim and that they were in a protected environment and that they could not or did not want to be seen by men because in their culture it is like this and ...this was met with a lot of criticism: 'Why adapt to this, here we are in Germany and linked to the west culture and it does not mean that it is good to go*

this far for this target group and they have to adjust to us a little bit'.] (BIG5, line 484-491)

Another example of cultural challenge was stemming from the cultural differences between the participants *per se*. An element which was mentioned by two interviewees was the obsession with time accuracy which was said to be shown by Germans in general as well. The accuracy with time was presented and elaborated not as a personal characteristic, but as a national attribute of German people:

[…we the Germans, we are very precise and that means we often show little patience when others are inaccurate, we are very reliable and that means it exhausts us when somebody says I will be there tomorrow at five o'clock and then she doesn't come.] (BIG3, line 248-252)

So the attitude of participants to not be precise and keep the time of their appointments contrasted the general cultural attitude in Germany and was again, like two different worlds in terms of how the two sides saw each other.

Summarising the existing structures that included traditions and generalised practices, preconceived ways of working and cultural attitudes acted as a disabling mechanism, creating barriers to the implementation of the project.

Balancing academic with applied public health

In the following section I will analyse the two different characters of the BIG project and how the perceived conflict between the two had a disabling impact on the project.

The BIG project started as a scientific project in the university, which had to be implemented in the community. It is thus expected that both the university and the community had different expectations and requirements. In terms of the scientific character of the project the external scientific advisors insisted on an evaluation based on a randomised controlled trial which is the golden standard in medicine. This evaluation would not however help the public health practice. Thus, such requirements were often, according to the senior scientific advisor below, contradictory, since being good for the one role required taking a portfolio of actions which would go against the other role. Some interviewees described how challenging it was to preserve the double character of BIG, the scientific on the one hand and the character of applied public health promotion on the other. The following citation depicts the perceived conflict of the interviewee:

> *[…as a scientist, I had the aim to do fine in the project, to write articles on it, to make the project well-known… the other side is to expand the project, more or less from the perspective of the public health practitioner … And then it is exactly when I have a conflict in the role, we very often had this picture… BIG is like a train on the rail, what are we going to do when the train is derailed? Are we going to help it continue on the rail or are we going to say, 'Yes it is*

derailed, I am a scientist, I saw it, it is derailed'?] (BIG3, line 215-229)

The difficulty of this process was recognised by the current project manager too, who also pointed out the effort to bridge the scientific character of the project with the practical being the biggest challenge. The BIG project had to reconcile processes such as evaluation according to academic standards, publications and presentation of the results to the scientific community, with pressure from the community partners who wanted to proceed quickly into practice, leaving aside the requirements of academia.

On the other hand, on the part of the community, this scientific character appears to have caused a kind of conflict too, which was fed with various preconceptions, such as that the university is an institute which acts slowly. However, this tension had various degrees of intensity according to the interests at stake from each side. In the case of the community's authorities who perceived their task as being to implement the project and to be the 'doers', there was a light form of tension in relation to their preconception that academia provided the theoretical background. The strongest version appears to be with the representatives from various companies. According to the interviewees, these people engaged very little because they perceived that they had a different *modus operandi* in relation to academia. So what emerges is a cultural clash between the professional and 'real' world of business, as business defines itself and the strong preconceptions it has about the operation of the 'theoretical' world of academia. For the corporate world the inclusive character of the project appears too unrealistic, apparently in contrast with the hierarchical culture of

most companies, where people are heard the most when they are highest in the hierarchy.

Summarising, the BIG project was a project which had to reconcile the requirements of both the academic public health and the applied public health side. This need acted as a disabling mechanism for the project because it produced many practical difficulties and was perceived with an increased sense of conflict among the interviewees.

Responses to challenges

I considered it important to examine the response modus of the BIG project at various challenges during the implementation phase of the project in a separate section. Taking into account that the project encountered intense difficulties which apart from practicalities were deep social matters, it is necessary to examine the strategies that the project developed in order to respond to the challenges it encountered. The reason I decided to examine them separately is because I came to consider that these strategies acted as mechanisms which enabled and eased the impact of the project.

Giving the project time

A part of the BIG project's response was to allow time. Time played a decisive role in order to gradually accept and integrate change. It emerged that change needs time and that the barriers became gradually smaller by allowing some time to pass by. Time acted somehow as the factor which eased the digestion of the changes by the system and the people involved.

In the following citation the importance of giving time in order to approach the target group is indicative:

[…this target group which is difficult to reach, which is sedentary, one should be aware that it needs a lot more time] (BIG2, line 265-266)

Time emerged as a factor of gaining trust from the existing system, including the women of the target group. It became evident that running a project for a long time offers the space for new interconnections to take place and new interest relations to gradually emerge. The creation of trust and reliance is the factor, which will make the associated networks of people operate better and more effectively.

Summarising, the fact that the project allowed time, acted as an enabling mechanism that produced the necessary space for new openings to take place, created trust and gave the necessary opening to digest the changes of the project.

Creating 'win-win' situations

In this section I will examine another responding mechanism of the project to the challenges that it encountered. This mechanism involved the ability of the project to put forward 'win-win' situations in order to appeal to the stakeholders and gain the necessary support for the project.

Creating 'win-win' situations would resemble offering the case of a fair deal for both sides in order to legitimize the invitation of key stakeholders to participate - the project is offering resources which would benefit stakeholders and the stakeholders would have to create 'friendlier' conditions for the realisation of the project:

[Yes, they had expected of course a return for their respective interests in the BIG project, I think that is a requirement for such projects, that you have to produce win-win situations] (BIG4, line 166-168)

Connecting this analysis to the previous element of time, which would offer more space to digest changes, creating 'win-win' situations would represent exactly the dynamic opening of the system towards aligning the interests of the existing actors to the newcomer actors. An example of such a 'win-win' situation is that the BIG project convinced policy makers in the authority of Erlangen that by supporting the project they could be positioned higher in the national agenda and set the paradigm as a federal state which acts on the socially disadvantaged.

Summarising, one way of responding to the opposition of the existing system to integrate the changes brought about by the BIG project, was by putting forward 'win-win' situations. The element of 'giving time' is a kind of passive manner to overcome the barriers, yet very powerful when referring to soft changes, such as changing cultural attitudes. On the other hand, the offering of real benefits and the potential to open new perspectives appears to be a dynamic approach of mechanisms to overcome the barriers.

Taking advantage of political windows

In the following section I will examine another mechanism which represents a dynamic approach to overcoming difficulties.

It emerged in my analysis that the project took advantage of particular window opportunities that were used for the set-up and successful

implementation of the project. I characterise these opportunities as ‘windows’ because they look like openings, which permit new actors to enter the existing structural system. Such window opportunities were in the form of political will from key policy persons to keep the project in the political agenda and the creation of potential alliances with supporting actors. The Project Director describes below that the way the project operated was the result of the present political support and that a future change of government might represent the project no longer being in the political agenda:

> *[Nobody knows if this will remain like that and at the national level the situation had changed too… now the government changes, therefore the conditions … maybe it won’t be there] (BIG4, line 244-246)*

Some interviewees stressed that the project later tried to enhance the strong network around the project. For example, I was told that they gained political support within both the CSU (Christian Social Union in Bavaria) as the governing party, as well as with the SPD (Social Democratic Party), as the opposition party. Interviewees told me about particular influential persons within the city council and how they provided strong political support with their personal networks and influences on other community actors.

Summarising, the BIG project took advantage of various political windows and opportunities in order to create the conditions to enter the political agenda and gain political support to operate in the current system.

Being flexible

In the following section I will examine an approach which stood in the middle of active and passive manners of responding to the challenges associated with entering and changing the existing structures. This was the flexible approach and represented the ability to adapt to the circumstances in various ways.

In the BIG project it is flexibility in terms of offering time in order to educate both sides to find the golden midpoint: the German project team on the one hand to display more acceptance and the participants of the exercise courses on the other hand to become more accurate. An example of this flexibility and adaptability was displayed below where an interviewee who spoke elsewhere about the frustration of the project team with the lack of punctuality from the side of participant women and course instructors. In the question about what the interviewee has learned from the project, the interviewee reflected on the following:

> *[I personally have learned that somebody should not stay on this punctuality... and must be simply a little bit more flexible and create a bigger time space for certain things] (BIG5, line 634-636)*

In other cases a more active form of flexibility was exhibited. Thus, on some occasions the project team decided to act differently from the plan in order to better serve its targets. A characteristic example of this flexibility was the modification of the evaluation plan. The project team decided not to conduct a randomised control trial which was in the evaluation plans of the project and found other ways to conduct evaluation, without risking the trust of

the participants. The interviewees believed that once they had gained the trust of the participant women it would be unjust for them to inform them that they would be allocated groups that would take the exercise classes and to ones that would not. For this reason they referred proudly to their decision to change their evaluation plans:

> *[We have often adapted the work plan …we had just taken it on (the flexibility), yes? And this was very good to the project…] (BIG3, line 173-174)*

The modification of the evaluation plan was followed by a situation of tension with the external scientific advisors who argued that their project would have less scientific significance without proper evaluation. With the influential intervention of the Project Director however, the external advisors were persuaded on the value of this decision.

Summarising, it emerged that being flexible to adapt to the circumstances acted as an enabling mechanism which created the necessary space in order to enter the existing structural system.

Outcomes – Achievements of the BIG project

In the following section I will analyse the outcomes of the project as they emerged from the way interviewees elaborated the project's targets and when in their opinion the targets were fulfilled.

The BIG Project appeared less number-oriented in comparison to a traditional health project. Of course, a basic aim, as many interviewees explained, was to increase the number of women visiting the fitness courses, something that was achieved in particular with the swimming lessons, which

were well over capacity. However, it appeared that the real target was to increase the confidence of the women of the target group and their ability to take initiatives; interviewees referred to concrete examples of women who felt empowered and were able to take initiative more often in their daily lives. Furthermore, another achievement of the project was the establishment of a feeling that the authorities cared about women in difficult life situations.

There was a universal acceptance among interviewees that the project was not successful in the workplace setting because the corporate environment was not open to change. Nevertheless BIG was established in the neighbourhood and in the sports club setting.

One interviewee who has worked both at the university and in the community, referred to the factor of the intensity of physical activity. In order to understand this observation, it should be noted that the project is under the umbrella of the Institute of Sports Science and Sports and thus within the foundation of this disciplinary approach and perspective. Under this standpoint, the project would not have been able to improve the physical condition of women because it was missing the element of intensity and exercise frequency. The project was only able to create the link to sports and to provide the social aspect of physical activity by giving the opportunity for social contact too. The reason, according to the interviewee, that women could not have been effective in training terms, was the fact that women were not able to attend the courses regularly. Apart from reasons stemming from the women's circumstances, such as their children (although the interviewee was not accepting that as an excuse because of the childcare provided during the courses), children's sickness or bad weather, the interviewee analysed the

cultural reasons and the different mentality of some migrant women. According to the interviewee's explanation, in the cultural world of these women, sports are not in a highly valued sphere compared to their family or their social circle and that was presented as the reason why they were not accurate with time and consistent in their attendance.

Another component of the definition of success was how effective the project was in reaching the target group in need. Interviewees stressed the results of the evaluation which showed that 90% of the participant women fulfilled at least one criterion for being a woman in 'difficult life situations'. Mostly, the emphasis was on the importance of personal contact with the target women and the power of the participatory approach, as well as the way to put it into practice. However, it is important to note the self-criticism made by two interviewees. Despite the high percentages of women fulfilling at least one criterion, BIG has not yet managed to reach the *'poorest of the poor' (BIG2 line 416),* because according to the conducted evaluation, although the project reached the migrants or the social benefit receivers, they were the ones with a relatively high education level.

A very important outcome of BIG was the social contact of women during exercise courses and the benefit of having their social network expanded. However, only one interviewee mentioned that their qualitative research showed that there were some kinds of cliques (BIG1, line 388-406) that didn't let new members integrate successfully into the courses. The formation of cliques appears to be an understandable phenomenon if one takes into consideration that the spread of the project's messages was through word of mouth among the personal network of women acting as

social catalysts. Therefore, if via the recruitment of participants through the women-social catalysts, the women brought their existing network of friends, then expansion of their network was limited in their network and in the case of new participants, they would feel estranged during the courses. This phenomenon must have been more intense in the case where existing participants completed the training and became instructors themselves in courses which included their own network.

The cliques can be one potential mechanism constraining the project's ability to reach women with 'more difficult life situations' or the 'poorest of the poor' and reached those with relatively higher educational levels and thus the better off among the target group. If women with more adverse personal lives and less intellectual capacity were not made to feel welcome in the courses and were feeling isolated and estranged, it would be less possible to adhere to participating in the courses.

Nevertheless, social contact was included in the objectives of the project. When the senior scientific advisor of the project was asked about the social benefit of the BIG project, it was stressed how this was included in the initial targets of the project and that sports are an excellent 'vehicle' to build social contacts, because sports provide the excuse and the reason for people to come together:

> *[…when we talk about physical activity, that we have a quick opportunity to build social contacts among women, yes? This is because sports are a good vehicle …from the beginning we were pretty sure that this is not only about sports but about integration through sports too] (BIG3, line 448-456)*

In this sense, if the social contact was not the outcome, the courses could not have been that successful in their general integration role as well. However, the target of integration is still in the agenda of the community as the extract of the Sports Director below indicates:

> *[…success would be for me when... we enter a process where we are able to say that we deliver a part of the integration job] (BIG6, line 415-417)*

The fruits of empowerment through physical activity, socialisation, expansion of social network and social integration, were reaped from the BIG project, although not at the desired level due to the operation of certain disabling mechanisms.

A part of the definition of the success of the project, although only marginally defined as such, was the scientific recognition of the project. The BIG project was the recipient of prizes and was included in international reports as a case study. There were significant references to the acknowledgement that the BIG project got internationally and it appeared as an important source of motivation for the interviewed BIG team.

Summarising, the BIG project gained national recognition and managed to produce a series of outcomes and benefits for the women of the target group, such as a sense of empowerment, creating the link to physical activity and achieving social integration although not at the desired level.

Having gone through change

The BIG project has not retained all the features of its initial character. The empowerment element does not characterise the project anymore:

[Now it is very much this exercise component whereas we had very much the empowerment component…Today I register as a woman for the exercise program… and I don't do this empowerment cooperative planning anymore] (BIG3, 418-422)

The new understanding of the project is clearly to be seen in the extract below coming from the Director of the Sports Office, which illustrates that the project in the community of Erlangen is about a model which is offering sports and physical activity opportunities to the women in order to help them find a new self-realisation:

[…we are no longer in a project but we are as a matter of fact in a BIG model which means we recruit women that have the opportunity to find another self-understanding in the sense that they take the time to do physical activity.] (BIG6, line 400-404)

The early character of the BIG project would be the other way around: women would first feel empowered and then they would decide what, how and when would be the best for them, in terms of opportunities for physical activity. In the current BIG model, the women are being offered opportunities for physical activity and thus they are given the chance to discover avenues for self-understanding. Of course, as the senior scientist partner noted, the repetition of the same process of cooperative planning every year would be expensive as well as time-consuming, as well as the fact that the community services would not feel competent to retain the cooperative planning process without the university role.

Becoming sustainable

In the following section I will examine the mechanisms which emerged, producing the conditions for a sustainable operation of the project.

It was immediately discernible that the BIG project had made the notion of sustainability an internal part of its philosophy. At many points of the discussion, the interviewees referred clearly to a sustainability phase within the project. The sustainable operation of the project is ensured through building a network of cooperation of the involved community partners. This was achieved with the invitation of all actors in the cooperative planning process. The cooperative planning phase acted towards ensuring first of all the realisation of the project through creating – although not without difficulty – the commitment of the necessary community players. In contrast, a realisation of a project under the umbrella of an institution without creating the necessary awareness and consensus with all the other institutional structures which would facilitate the operation of the project would most probably turn out to be less sustained.

The invitation of the necessary actors in the cooperative planning acted towards the direction of agreeing with supportive structures altogether. The BIG project had a plan not to solely operate physical activity classes but to create structural changes which would support a health-promoting and physical activity-friendly environment for the target group. In the words of the current project manager, the BIG project had four levels of health promotion with the first being the development of physical activity courses across the three settings of the neighbourhood, sports club and workplace. The second level was the creation of supportive structures which would be health-

promoting and which would enable women of the target group to lead healthier lives. The third level would be the education and training of women to become qualified sports assistants for culturally diverse groups. Given the fact that women with Islamic background could not attend traditional sports training due to the fact that swimming was taking place in mixed gender pools, the project proved that it was taking an authentic step towards enabling and empowering women in 'difficult life situations' respecting their cultural considerations. At the same time, this action was an important step for the sustainability of the project because it could assure a stable flow of course instructors for the BIG project, coming from the target group itself.

The fourth level of the promotion pursued by the BIG project was, according to the current project manager, at the level of policy development, which is physical activity-friendly for the target group. Practically, this means that it had incorporated in the initial participatory meetings these members of the community who were the policy-makers. The project included these stakeholders in the cooperative planning who would later on host the project and run it in their own capacity, such as the Director of the Erlangen Sports Office, who was present since 2006 in the participatory meetings as well as the mayor of Erlangen. The result of this process was apparently the successful migration of the project to the Sports Office, thus its evolution into a community-based regular physical activity programme. The Sports Office officially undertook the project in 2008 so the transition was very smooth because they had secured beforehand the necessary funding to run the project. The funding that was necessary to sustain a part-time position, which would coordinate the project, was thus already there. The funding for the

project in Erlangen was guaranteed at least until 2014. The amount of funding was at a level of €3000-4000 annually. Thus, the project was tested by enduring the transition from a research university-based project to a community project.

The need for quality management was mentioned by the current project manager as a necessary step for the sustainable operation of the BIG project. It appears that the project can benefit substantially by the usage of sophisticated management tools in order to ensure the consistent operation of the project; at some stage during the day-to-day business, the previous administration structures would not emerge, putting in peril what the project has won. A step towards this direction is the development of a BIG manual which will include a step-by-step tool that will guide the implementation of the BIG project in other German cities.

Summarising, the consideration of sustainability as an integral part of the BIG project philosophy and planning, acted as a mechanism which allowed the project to operate with a long-term prospect and increased its ability to maintain structural change. The invitation of all key stakeholders created an increased level of consensus and involvement of the key actors. Their incorporation in the decision-making process produced an environment which emerged to be physical activity-friendly for the target group and ensured the successful migration of the project from the university to the community with secured funding for its operation. The agreement of supportive structures allowed the realisation that the physical activity courses and the education and training activities produced a stable flow of physical activity instructors stemming from the target group itself. Finally the

development of the BIG project manual ensured the consistent operation of the project and will allow quality assurance and conditions to ensure its implementation elsewhere.

Summarising the operation of the BIG project

The BIG project was set up in a city with high standards of living and a positive attitude towards sports and sensitive reflexes around the integration of migrant populations. The realisation of the BIG project which sought to create exercise opportunities for women in difficult life situations was possible due to the political capital, influence and extensive network of the University-based Project Director. The application of a participatory approach with cooperative planning sessions creates conditions favourable on the one hand for the target group, who feel empowered and that somebody is listening to their needs. On the other hand, the involvement of all relevant community stakeholders allows for the sustained assurance of the operation terms of the project and the successful migration of the project from the university to the local authorities' jurisdiction. The project manages to reach the target group through the 'social catalysts', where women of the target group tried to recruit women from their extended network.

The project encountered many challenges in its effort to create new structural conditions and establish its presence. The increased perception of the project's difficulty led to frequent changes of personnel and conditions of increased conflict among employees in relation to how they could preserve the project's character.

The project migrated successfully to the local authority and operates physical activity courses at community premises. The project manages to

create opportunities for physical exercise for the women of the target group. Although it no longer provides the empowering effect for the women with their participation in the cooperative planning sessions, it helps them to become integrated in the community and feel empowered through the effects of physical activity. The BIG project manages to ensure its sustained operation through the early participation of all involved actors within the community. It also achieves a sustained flow of participants from the target group by ensuring trainer education for the women of the target group.

Chapter 6: Results of the Walking for Health project analysis

In the previous chapter I used a realistic evaluation approach for the Movement as Investment for Health (BIG) project. In this chapter I use the same approach for the Walking for Health (WfH) project, a project that supports health walks across England. A description of the project and how the data was obtained is then followed by the results of the analysis. Each section represents a major thematic idea (core code) that resulted from the open, axial and selective coding of the qualitative data. As a result, there are sections related to the mechanisms which facilitated and hindered the impact of the project (challenges), the context and its value for the realisation of the project and the outcomes the project achieved, according to the data obtained. I finally examine the sustainability of the project and in particular how sustained its effects appear to be.

What is the Walking for Health project?

WfH is an organisation providing support to communities to operate walking schemes, which could be delivered through primary care trusts (PCT), local authorities or voluntary bodies. Participants learn about the schemes through word of mouth, references from PCTs, marketing in the local community and the WfH website. The latest data presented in the project's website, claim an operation of more than 600 local schemes, which include more than 75,000 walkers (Walking for Health 2012b). Thus, the Walking for Health (WfH) project is a network of health walks stretching across England. More particularly, a health walk can be defined as *'a purposeful, brisk walk*

undertaken on a regular basis'. Anybody can locate the walking scheme of his/her preference and join a health walk for free.

In relation to the mission of the project the official website of WfH claims that the project aims to *'encourage more people to become more physically active in their local communities' by offering 'regular short walks with trained walk leaders' (Walking for Health 2012b*).

The project was inspired by Dr. William Bird, a general practitioner who, according to the WfH website, initiated the concept of health walks back in 2000. WfH was initially under the Countryside Agency and in 2006 was transferred to Natural England, under which it would operate in the next years, receiving funding by the Department for Environment, Food and Rural Affairs. In 2009 it was decided that it would receive funding from the Department of Health under an expansion program which aimed to increase walkers' numbers in England by four times (Walking for Health 2012). When my interviews took place in November 2011, the project was in a transitional phase and was about to change both Natural England as host and the Department of Health as funder during the next months.

Data collection

The participants that were interviewed from WfH were employed to work for WfH when the Department of Health undertook the funding of the project in 2009, so they were employed for almost two years and their contracts were ending at the end of 2011 or early 2012. I encountered some difficulties in approaching the interviewees because the project was at a transition point and many people had ended their contracts. Besides, there was a general unwillingness from the participants to conduct the interviews

since they would soon be leaving the project. I tried to overcome this attitude by using the argument that it would be useful to capture the experiences of the current management before the host of the project changed. A total of 8 interviewees, six women and two men, participated in the study. Of the eight people interviewed, six were on fixed term contracts, which would be terminated the following month after the interviews took place. The other two, the most senior, were permanent employees of Natural England who, I was told, would be allocated to other projects within Natural England after the end of WfH. Since the choice of interviewees was out of my control, my hope is that the pool of my interviewees was not too biased towards the project. The interviews took place between 1 November 2011 and 28 November 2011 in the city of Nottingham, Worcester and Peterborough in the UK. Table 4 shows the informants list, their coding and the type of interview conducted with them.

Table 4: List of WfH project informants

List of informants' code	Area of work	Interview type
WfH1	Data evaluation	Face-to-face
WfH2	WfH adviser	Face-to-face
WfH3	WfH administrator	Face-to-face
WfH4	Communication	Face-to-face
WfH5	WfH Lead	Face-to-face
WfH6	WfH adviser	Phone
WfH7	WfH Lead adviser	Phone
WfH8	WfH Lead adviser	Phone

Structure of WfH project

In the following section I will describe the structure of the WfH and examine how this structure influenced the role of the project in the communities.

WfH has the structure of a national organisation with a national team consisting of about 25 people and eight regional teams across England, consisting of about five to eight people each, working at a local level, totalling to a team of about 80 people. Thus WfH comprises the hybrid structure of a national project, with an umbrella organisation, which directs the project at a national level combined with teams coordinating the regions. The national team supports the regional teams in terms of providing the cascade training model, insurance to walkers, accreditation of the walking schemes, evaluation, maintenance of the website and marketing, general support and advice. The regional teams were working with local authorities, such as the NHS, sports councils and GP surgeries to set up local walk schemes. According to insight from interviews, there was an overall direction given from the national team, but each regional team had the freedom to develop its schemes differently and serve the needs of each community. Each region consisted of a number of counties and for each county or for every two or three counties there was a corresponding Lead Adviser or Adviser.

All interviewees seemed to agree with the identity and the role of the project. Thus, according to what I was told, the task of WfH was to ‘enable’ communities to create walking schemes and not to create the schemes in the communities. This enabling function of the project appears to comprise the

fact that each community had different prerequisites and different needs, and thus needed to receive different support by the regional teams.

The type of support provided by WfH was in the form of resources and expertise in setting up walks and helping to grow and maintain them. One senior interviewee elaborated this function with clarity:

> *'…we are enablers, we are not the doers necessarily, we can help but, but …the fundamental point of which we make a difference is when a new walk starts up, when somebody picks up the phone to us and says 'I want to start a new walk, I don't know how to do it' (WfH4, line 465-470)*

WfH had developed the training program, which was an important part of the 'enabling' function of the WfH project. As interviewees explained, there are two types of training: training to become a walk leader and thus be able to lead a walk and cascade training, which is about training other people to become walk leaders. Training to become a walk leader would be offered by cascade trainers who can either be individuals from an external training agency, or paid members of staff from the local authorities, sports partnerships or charities or walk coordinators themselves.

Summarising, the structure of WfH comprising of both a central organisation and a network of regional teams, appears to accommodate the target of the project to serve the needs of the local communities.

Context in the tradition of walking

In this section I will examine the contextual conditions in relation to walking and how these contextual conditions were the background upon

which the mechanisms of the project, which will be described in the following sections, acted to produce or not produce their effects.

In general, it emerged from the interviews that in England there is a long-term tradition of walking. There are various walking groups, with the Ramblers being one of the most prominent groups organising long or very long walks for advanced walkers and people in a good physical condition. Some interviewees argued the difference between Ramblers and WfH, which also lies in the fact that WfH does not charge participants.

According to the interviewees, there were many communities with established walking groups which operated through a health promotion team based in the local Primary Health Trust or with the Sports Development offices within the community's local authorities with staff who are health advisers, health trainers or sports development officers. These walking groups, some of them operating for a decade or so, were not always following the model of WfH, in terms of free participation, or they involved walking at a brisk pace. However, these communities possessed local authorities committed to providing health promoting activities, such as support for walking schemes. In a background with established walking activity and committed local authorities, it is thus easier to find a pool of dedicated people and local champions. Such communities appeared to be more responsive to WfH and could easily be mobilised to show interest in supporting new walking schemes. Thus, the commitment of local authorities, which is an essential factor for the establishment of the walking schemes, is more possible to exist in such contexts:

'...So you have got commitment from the council, you have got somebody that is a champion already … so you have got some of the ingredients to make WfH success…successful.' (WfH4, line 214-220)

In other districts, which didn't possess a history of established walking schemes, it became evident that they also noted progress in attracting walkers but it was more modest and at a slower pace.

Summarising in this section, it was shown how the existence of a culture of organised walking coupled with the existence of responsive local authorities acted as the background for the enabling character of the WfH project to set up more or new walking schemes. The more active commitment shown from the side of the local authorities, the more rapid the increase in the number of walkers in the walking schemes.

Context in the WfH project

In this section I will examine the specific conditions within the project and the developments that were identified to have an impact on the operation of the project.

WfH apparently has two distinct periods in its operation. The first period started in November 2009 when the Department of Health undertook the funding for the operation of WfH and finished back in March 2011 when the Department of Health announced the withdrawal of funding from the project, which wouldn't allow the project to go on to its third year in its current form. Most interviewees refer to the withdrawal of funding as a consequence of the change in government in England in May 2010, when a coalition between the

conservative parties and the liberal democrat party took charge. In the context of the new coalition government which was formed in 2010. A big shift was signalled towards reducing central spending and transferring the responsibility of funding to the community. In this regard, the general economic crisis as well as the austerity measures and the restructuring such as the abolition of Primary Care Trusts set to take place on 31 March 2013, were mentioned as negative influences. In the quotation below it can be seen that emphasis was placed on the fact that the new focus would be on volunteer work and local delivery:

> *'…with the change in government from my understanding there has been less money going in, into organisations such as Natural England to run health initiatives or health programs and there is a lot emphasis on volunteer service, 'big society' they call it, so …trying to encourage volunteers within the country to take on work which probably was previously …and say goodbye to employing more people.' (WfH2, line 152-155)*

It was also emphasised that the transfer of responsibility from the government to the local community would make the choice of the allocation of the scarce resources more rigid:

> *'…the schemes will now have to put a real good case…why they, the local public money should be spent on them rather than …than some other scheme.' (WfH5, line 73-75)*

From November 2011, the project entered a second phase of operation which lasted until the end of March 2012, when the new host took over. Interviewees described the period, as well as the climate, as a ‘divestment period’ or going through ‘structural changes’ or ‘restructuring’. In this second phase, the project was in a maintenance mode and developmental actions were not possible. Interviewees explained that during this period the project was not taking any opportunities and proposals for further development. The main tasks were reduced to supporting the existing walking schemes, prioritising among the weakest and making sure that schemes were able to run by themselves. WfH was keeping the walking schemes informed of the developments and was preparing the hand-over to the new host by working on passing the history and the contact details of the schemes to the new host. The restriction of funding during this last period until the new funder undertook the project had as a result the shrinkage of WfH’s number of employees from nearly eighty people to about twenty-five. The spending on marketing was completely discontinued, so paid promotions stopped and marketing was only possible through free press releases and social networking. The interviewee below describes the pressure that was felt from the employees, to continue working with reduced resources:

> *‘It does feel at times we have been trying to do our jobs with ...both hands tied behind our backs because we are trying to …we are trying to increase the number of walkers but …we even had a publicity ban from March this year so how would you get the word out if you are not allowed to do any event or advertising or*

marketing? So …it has been a very difficult time to actually try and achieve this project and hit our targets.' (WfH7, line 237-241)

Some interviewees informed me that there had been negotiations taking place with a consultancy firm which was representing the Department of Health and the bodies who would take on funding and hosting of the project. The process would include the announcement of a tender for bodies such as charities or public health and medical organisations. One interviewee revealed that everything was going on in secret and that they were waiting in the following weeks for the new host and funder to be announced. It was claimed that the avoidance of any disclosures in the process would offer some security and reassurance to the walk coordinators and partners of the project, so that there would be continuity in the project.

The fate of the WfH project was not uncommon. Many local projects of different kinds had to face restructuring, go through a tender process and rely on big society such as volunteers and charities. In this respect the feelings of the interviewees were expected and related to the insecurity and the uncertainty associated with the new developments.

Mechanisms with an enabling impact on the WfH project

In the previous section the context within the project was presented as well as the conditions in some communities. In this section, I will examine the mechanisms that, according to my framework of analysis, had an enabling impact on the project.

Belief in the project

In this section I will examine the impact of a notion which became obvious from the early stages of coding. This notion was the belief, the admiration, the faith and the dedication in the idea of the people of the project interviewed. It is speculated that the belief of employees in the project is a factor which contributed towards making the project work by increasing its impact and its sustainability. For this reason, I considered it important to understand why there was belief, the origin of this belief, how it was developed and what preserved it. The concept of 'belief in the project' emerged to be expressed through two categories of feelings which showcase this belief: one is 'feelings for the job' and 'feelings about the walking project' *per se*.

In relation to the category of 'feelings for the job', almost all interviewees referred to how happy they were and how much they enjoyed working for WfH, in terms of working conditions. This was tracked from the beginning of their employment when interviewees referred to the supportive training they received as well as the encouraging environment that prevailed. One female interviewee lower in the hierarchy spoke about the equality in the team and that she was never made to feel her position was low. It appears that the working environment was comfortable and characterised by team spirit. In terms of working conditions, two interviewees clearly referred to the work-life balance and the flexible hours of working, and that they were able to work from home. In relation to the work-life balance element, the interviewee with a corporate background indicated that this was the reason for moving to the public sector where the hours of work were more reasonable.

Nevertheless, it is difficult to trace how this working environment was created. One possibility is that this working environment was the result of the management principles in the national centre. Alternatively, a dedicated team motivated by the concept of the project who were receiving gratification from the impact of their work and who were inspired from the contribution of the volunteers might be a possible mix which creates this type of working environment.

On top of these feelings emerges a sense of fulfilment from the opportunities to develop one's skills. Interviewees mentioned learning about marketing or administrative skills but most focused on developing communication skills through the project. Interviewees described how they improved their interpersonal skills, how they gained communication understanding, as well as learnt the good ways and the bad ways to communicate things and get messages across effectively. That finding appeared to emerge as genuine, as a real personal gain and not as a kind of alternative to avoid saying that they had no other learning gain from the job. This probably appears to indicate an environment of high calibre, which would challenge employees. The WfH national team, Natural England, the regional teams of coordinators across England, the stakeholders such as PCTs, local authorities or other community bodies, the volunteers and finally the walkers all require high levels of quality communication in order for the project to function normally.

The second category of feelings which showcase belief is the 'feelings about the walking project'. For this category I tried to differentiate and put

together the thoughts and the feelings of the interviewees, which were about the idea and the concept of the walking project *per se*.

The people interviewed transmitted a feeling of general gratification from their jobs; one source of this feeling appears to be the fulfilment from the impact of the project on the participants. Many interviewees spoke about ‘a rewarding job'. This feeling appears not to be self-centred in the sense of personal achievement, but rather as recognition of the project’s benefits. It appears that seeing the impact in their job on the people who participated in the walks, played an important role in the process of this belief development among the delivery team. Nearly all interviewees mentioned that if somebody could see the groups of people walking, the impact of the project on people’s lives would be immediately apparent. One interviewee working in the regions told me:

> *'I actually was fortunate enough to get out on a couple walks with schemes and I get to chat with the walkers and just see what a difference it makes to them, you know it… remind you the whole reason why the project. …works, why it’s still continuing and what people do get out of it … ' (WfH7, line 494-497)*

Another interviewee encapsulated this feeling of gratification as follows:

> *'...seeing that I was making a difference going out and talking to people ….(WfH4, line 622-623)… having people coming back to you and saying ‘...you saved my life or WfH saved my life or*

changed my life' is …you can't ask more in a job I think.' (WfH4, line 873-875)

Another important element according to many interviewees is the presence of bold figures within the project. The presence of the volunteer walk leaders who work for the project without expectation of returns inspires and motivates the employees. Most interviewees mentioned individual figures such as William Bird, the GP who had the idea of Walking for Health. William Bird inspired and motivated the delivery team with his vision, according to interviewees and had a presence within the project until the year before the interviews. The commitment of the delivery team towards the project goals appears to be a relevant side of the notion of belief and trust in the project's concept. One interviewee working in one region presented this commitment as a purpose which cannot be found in ordinary posts elsewhere:

'…there are a lot of people who are committed, really committed to delivering something worthwhile basically and the people want to be involved in something that is actually gonna help people rather than just working for the x company.' (WfH7, line 807-809)

Even according to the strictest opinion among all interviewees, employees were fulfilling the tasks of their post: *'I wouldn't necessarily pick up any WfH staff… to be honest because… people have done their jobs.' (WfH7, line 233-234).* Further to that, the particular interviewee recognises real commitment only in the volunteers. This could possibly be due to the fact that the interviewee has a background in the voluntary sector. Apparently, the

interviewee is influenced by the model of unpaid voluntary work which represents an altruistic form of commitment, which cannot be found in the public sector or in private sector jobs.

One dimension of the project which appeared to inspire the employees is that that project had *'no financial benefit' (WfH3, line 293).* According to a senior male employee, the project makes no profit and it is offered for free to the public:

> *'WfH you know was never about making profit, it was never you know a business, it was always about helping people get active and it was nothing, nothing nasty hidden behind it you know …it was just a very sort of selfless project.' (WfH1, line 430-433)*

At this point one could question whether the people interviewed were committed because they believed in the project, or whether they believed in the project and became committed to their jobs. Below is what a senior female employee said about this:

> *'I can't decide which one it is or whether it's a combination of the two. Obviously, we must have an interest in it to join in the first place, mustn't you? Like I, I had an interest in it, you know to come and join in the first place …but I can only go from my experience, when I saw this …eee job advert I thought 'That's it! I would do that for nothing!' (WfH5, line 563-570)*

Another interviewee indicated that the project itself attracted a particular type of personality: *'…it attracted a lot of people to it that want to*

make a difference, that want to …make society a little bit better' (WfH5, line 580). By going back to the background of the people interviewed, it surfaced that an interviewee was fairly young with an administration background and another interviewee had a corporate career in an international company. There were employees with backgrounds in public health or sports development, who spoke with enthusiasm about the particular project's approach. However, the project's approach appeared to be accessible to professionals with different educational backgrounds, which might suggest that people believed in the project and were committed to working with dedication, within the context of its operation.

Summarising, the notion of belief was identified as a mechanism which contributed towards enabling the impact of the project. The belief was distinguished into belief about the job itself and belief in the walking project and the gratification it evoked from helping people.

Properties of walking as a form of physical activity

In this section I will examine a few properties of walking as a form of physical activity which appeared to act as a mechanism enabling the impact of the project. These properties also appear to be connected to the previous section, reinforcing the belief of the interviewees in the project.

What did interviewees 'believe' about WfH? What was the core idea of the project that made them feel so strong? Interviewees frequently offered their ideas in relation to walking during the interviews. A senior interviewee said that the project's key idea was actually very simple and did not require complicated prerequisites. Another senior interviewee, supported the idea that walking was suitable for participants that were not used to exercising or were

recovering from illness, or for older participants, who couldn't start any sports activity at an older age: *'...it's being shown to be good at getting people from nothing to something (WfH5, line 172)*. Indeed it was said that the project was not successful at attracting younger people since they would prefer more active sports. In any case, the walking schemes took place during the mornings when younger people would be at work. However, it appears that this expectation acted as a self-fulfilling prophecy: if the project was perceived as a project for the elderly, then younger people would be less motivated to attend an activity intended for the elderly. As a result the project organisers would not aim for the young, since they would be difficult to attract, so they would only target the elderly group. This assumption possibly explains the reason why in the slides of photos displayed on the homepage of WfH, the majority of photos were of smiling elderly people (Walking for Health 2012).

Connecting the properties back to the previous section of belief, the project possessed a simple concept, which permitted employees the ability to see the impact of the project's operation. This created a sense of gratification and a perception that the project had a positive impact on people. Combined with the fact that the interviewees perceived the project's operation as irrelevant to financial rewards, the interviewees felt more inspired and stimulated, putting more belief and faith into the project.

Creating 'win-win' arrangements with communities

In this section I will examine an element that relates to the operation of the project and how it was trying to establish itself.

The WfH project had managed to bundle the benefits of the project into an 'after sales package' as I was told. This package included the training of

the walk leaders, public liability insurance, access to the database and all other resources of the project. In this way the WfH project generated 'win-win' situations between the project and any potential stakeholder. These 'win-win' situations were partnerships under which both parties would benefit from the arrangements of the partnership. This approach was applicable to all involved stakeholders, whether they were local authorities possessing a walking history and committed authorities, or authorities who didn't, or any other partners. WfH appeared to adopt this 'win-win' approach in attracting stakeholders to the project, because it had the belief that if potential partners perceive partnerships as useful and advantageous, then the effects of the partnerships would have better chances of being sustained:

> *'We talked to a lot of the Tesco's eee…community champions and say, them trying to (end up) as walk leaders, so they lead walks from their stores. Eee some of them, it was just the case of saying, yeah we will give you the café, you know, come and sit in our café for a certain time of the week, we will give a discount of say ten percent, fifteen percent for tea or coffee to encourage people to come in …and then we have been able to go in to the stores and advertise WfH so talk to customers and sometimes put leaflets in their shopping baskets, I think, to take away, and for us, that reached more wider audience.' (WfH4, line 130-136)*

Summarising, the creation of an obvious value package and its strategy to offer 'win-win' conditions to any potential stakeholders, such as

communities or other partners, increased the ability of the project to attract the partnerships and maintain their sustained commitment.

Need for time

In this section I will examine one element which was mentioned by the majority of interviewees; and this element is time.

It emerged that a certain amount of time was deemed necessary so that schemes could be integrated in communities. During this period of time, the WfH project would accompany the walking schemes in order to become embedded in the communities and be able to continue their operation independently. An interviewee responsible for setting up new schemes in one district gave a realistic indication of the time needed to establish a walking scheme as half to one year.

It is also interesting to see the acceptance of new schemes in one area in the words of a senior interviewee with a background in public health. The interviewee claims that there is a process according to which the idea of a walking scheme becomes embedded within a community and which apparently takes some time. This period is related to the time people need to familiarise themselves with walking, to be accustomed to this activity and to put it into their lives:

> *'…you get the early adopters, don't you, who got 'yeah let me go at it, that looks new, let me try that!!' So it was …you got a trickle of people …and people who went 'mmm okay we are doing it' and they then began. It took a little while, it, it, it wasn't an instant thing that people went in 'yes!' straight away. So you have got to be*

patient with it I think, the first reaction was 'do I, is that for me, can I do that?' and then after that once you actually got them to try it or got some people …to show them 'look, this is possible and it's easy' then you are ok and you can bring the rest of the community with you.' (WfH5, line 421-431)

This familiarisation with a new activity such as walking resembles a cultural change in the lives of people and according to an interviewee takes time to take place.

Summarising, the provision of support of the new walking schemes over a period of time, increased their potential to become embedded and integrated into the lives of the people in a community. The allowance of time acted as a mechanism which enabled the effects of the project.

WfH brand and marketing

This section analyses how WfH aspired to be recognised by the public. The WfH project had put forward a marketing strategy which was seen as an essential tool in order to appeal to the people: *'...it is all about the marketing and how you bring people, how you bring the walkers in…' (WfH4, line 278).*

WfH, like every product or service seeking to attract interest, has a logo. An essential part of this strategy appeared to be about creating a specific brand around WfH, a form of identity for the project, what it is about the project and to whom it appeals:

'...the branding of the walk to call it 'walk and talk' or do we call it 'walking in nature'? And trying to appeal to different types of groups… so being quite… specific about the target audience and

then, how you then maybe adapt to the walk or the types of walk within that scheme. So that made a difference.' (WfH5, line 664-668)

One basic assumption from the analysis is that WfH did not try to 'sell' the health benefit of walking, A senior interviewee stressed that the characteristics that best appeal to people in the design of health programs is the pleasure factor, which appears to be associated with the social part of a project. People are coming together to do a physical activity but the enjoyment factor associated with doing this activity has greater importance than the health benefit:

'...although we know that it will benefit people's health …that is not how we sell it at all. We sell the social element of it and that tends to be what draws people in... Not come and get healthy, not necessarily no. That's not really, what brings them in …I am happy, is it, as a sports scientist I know that if they do this … they will be ... [laugh]…yeah they will be more healthy, that's great for me but that's not what they wanted to hear, they just wanted to hear about coming along and enjoying what they are doing or being with other people so…' (WfH5, line 357-388)

The use of walking posts on the website or in other marketing material with elderly people against the young, created another issue in relation to the project's appeal to people of distinct ethnic groups. According to the same senior employee, the project failed to attract such groups due to their

communication strategy with walking pictures of white women. The WfH project indeed mostly attracted white women in their fifties and sixties, from a middle-class background, according to most interviewees who referred to the project's evaluation material.

In relation to the marketing strategy of WfH the information about the project was mostly disseminated by word of mouth. People would come to the walks, they would enjoy the welcoming experience and as claimed by the interviewees, they would bring their friends to walk together. Thus, the social element would be further reinforced since people would bring their neighbours or their friends to participate in the walks.

Apart from the most traditional promotional methods of marketing such as word of mouth or advertising slogans on buses ('So wouldn't you rather walk?'), the communication strategy of the project through the WfH website was also very powerful, according to the interviewees. The WfH website is an online platform of information, has an instant application called 'Walkfinder' which allows one to find walks in nearby locations, and operates an online member's community. It has incorporated the modern techniques of the internet allowing the participants to network online and see photos and information about walks through interactive applications such as Facebook, Twitter and Flickr. Most interviewees stressed the importance of these means and the increased number of visitors on the WfH website and the social-networking webpage as proof of the popularity of the project among participants. The important element is that through this pathway the social characteristic of WfH would also continue and actually be strengthened, apart from the walking time, in other times of people's everyday lives.

Summarising, the identity that was created for WfH and the marketing strategy that was used to promote this identity was the social element of the walks rather than their potential impact on the health of the walkers. This element emerged as an enabling mechanism for the ability of the WfH project to attract participants.

Being flexible

In this section another element associated with the dual structure of WfH will be examined; that of operating a central organisation along with regional teams. This element was the flexibility resulting from the fact that each scheme was different. These two elements were often coded together and spelled out in the interviews unaided by concrete examples. Each walking scheme would be different in the sense that it was set up under different actors, such as volunteers with a walking interest, community champions, local health authorities who were looking to execute the exercise referrals of GPs' surgeries or the local council. Thus, each walking scheme would have a different audience and different operation times and it would take advantage of the local possibilities for walking, such as local parks, green fields, riversides or interesting parts of the city centre. Thus, as interviewees said, this flexibility to be different allowed the project to adapt better to local needs.

Summarising, the existence of flexibility in WfH emerges, resulting from the specific type of operation, which utilised a central organisation structure coupled with operating regional teams that coordinated local walking schemes. This flexibility acted as an enabling mechanism allowing the project to serve the different local needs better.

Walk coordinators acting as 'community champions'

In this section the impact of walk coordinators that emerged to act as community champions for the project will be examined.

The walk coordinator would be either a paid professional from the local authorities, such as somebody with a sports background working for the local council or an employee who coordinates exercise referrals in local PCTs. The walk coordinator according to interviewees acts as 'community champion' for the particular district because on top of the duties that he/she carries out with small compensation, the walk coordinator undertakes the organisation of the walking schemes. The walk coordinator would be the one to set up and manage the walking schemes and also carry out the recruiting of walkers. Eventually the walk coordinator would identify among walkers the ones that would wish to do the training to become walking leaders themselves.

So the project depends on paid walk coordinators in the first few months until the project is able to operate with volunteer walk leaders. The walk coordinators were mentioned as quite a decisive factor for the success of the walking schemes because good walk coordinators are essential for the penetration of the project in the communities acting as the link which can bring people to the schemes. A friendly and approachable walk coordinator would welcome new walkers and affect whether the new participants would continue coming. The Lead Advisor below stresses how the existence of commitment from their side would be pivotal for the successful establishment of a walking scheme:

'…that's the difference to me between the successful scheme and the one that just falls by the way side as the, it is the quality of the

walk coordinator and how committed that person is.' (WfH7, line 477-479)

Summarising, walk coordinators appear to act as community champions for the project and their strong commitment to the project emerges as a mechanism with an enabling impact on the operation of the project.

Volunteer walk leaders

In the previous section the impact of the paid walk coordinators for the project was analysed. In this section the impact of volunteer walk leaders will be examined.

Volunteers were mostly people who enjoyed walking and by volunteering, they could combine doing their own physical activity with helping other people walk as well. The creation of bonding among participants of a walking scheme made some participants become walk leaders. Thus, some participants driven from their desire or need to give something back did the training to become walk leaders. Thus, the transition from walker to walk leader was the result of the gratitude felt towards the project, as a senior interviewee indicated:

'I moved from being a walker to a walk leader or I came from walk leader to a cascade trainer, so people progressing and saying 'I care about this enough to make a change, I want other people to benefit from what I benefited from' so they have seen their …their physical activity has improved and increased and want other people to be helped in the same way.' (WfH4, line 861-865)

Other motivations would also have been activated, such as curiosity or personal fulfilment with the leadership role for instance. Another driver could also create a sense of belonging to a national group which was promoted with the offer of promoting material to walk leaders, such as an anorak with the WfH logo. Thus, this sense could create a feeling of fulfilment similar to working for an employer, which could be a vital motivation for retired participants.

But as most people who volunteered were retirees, one should note the possibility that one day the project would have to deal with the health problems encountered by the volunteers. Thus, the issue raised with volunteers is the long-term sustainability of a project which relies heavily on volunteers in the third age for its operation. One should also mention the possible appearance of 'burn-out' symptoms or when incidents and new circumstances happen in their lives, such as the need for provision of care to their partner or to their grandchildren. Although interviewees did not report any issues of 'burn-out' symptoms, the issue of aging and ill health was indeed mentioned.

The project management however seemed to have a process in place in order to keep alive 'indefatigably' the inspiration and commitment of the volunteers. This was based on two functions: Firstly, as the Lead Adviser told me, the project management offered tangible rewards to volunteers, or invited volunteers to network events in order to make them feel part of the WfH organisation.

Secondly, WfH had in place a process to maintain a regular stream of volunteers. Through the cascade trainers who were mostly paid employees,

the project could rely not only on training particular volunteers to be walk leaders but also on a stream of volunteers being trained to lead current and new health walks.

Another interesting dimension that emerged during the interviews is the attributes of people who volunteered to walk as leaders of the schemes. The effect of a committed, approachable and friendly walk coordinator is very important. It appears that the project attracted friendly and dedicated people who enjoyed becoming walk leaders. I suppose what also happens is that people who chose to voluntarily become walk leaders had a certain type of personality in terms of approaching other people.

Summarising, volunteer walk leaders and their qualities of being approachable and friendly were acting as an enabling mechanism on the project. In the project this impact was identified and in order to enhance their commitment and motivation, the project used to offer promotional equipment and invite volunteers to WfH events. A process to ensure a regular flow of volunteers through the usage of paid cascade trainers was also put into place.

Social element of walks

In this section the social element of walks will be examined. In line with the analysis in the section of WfH brand and marketing, which emphasised the importance of branding the social element of the walks by the project, the social element was a factor which acted independently and promoted participation in the walking schemes.

The data clearly suggests that one basic driver of participation in the walking schemes, social contact, is not related to health. It might be that the project used this observation and chose to make it part of its marketing

strategy. As one senior interviewee with a background in public health said, dictating health messages to people can be counterproductive:

> *'I think preaching to them and telling them 'you must do this, you must eat five …portions of fruit, you must do this amount of exercise', eventually they will go 'you know what? I am just going …make my own choice' …so I think …if you make it more readily available … so that it is easy to go for a walk …it's eeee the environment that you are in is a nice environment to go for a walk in ….I think making sure that the environment allows …ee choice…allows you to make the choice of being more physically active, I think that will start to turn culture around.' (WfH5, line 394-405)*

The project worked in the direction of creating an environment that 'silently' offered healthy choices – without selling them as such – and the interviewee was confident that this approach would eventually work in the direction of cultural change. The same approach was captured elsewhere in the interview with an employee within the national team:

> *'I think it was the right approach, I don't think we could have gone in there and be heavy-handed and said 'look, you must do this, this and this', because I think that scares people off sometimes.' (WfH1, line 452-454)*

When people participate in health walks, they can chat with other co-walkers. Thus, as participants of a walking scheme along a route, they also

socialise. I was told that people go on the walks in order to meet their friends and chat about their week. Interviewees described an atmosphere of bonding among participants and it is presumed that people formed friendships which would go beyond the time of walking:

> *'...participants who feel poorly and they can't walk … for what reason they have, cold or they don't feel like walking, however they said they don't go on a walk, they go …to the café afterwards… so they still meet with the group eee... After they have done the walk but they just don't do the walk, perhaps they, within the next week when they feel better, because they haven't missed out on the week, they could see them.' (WfH2, line 356-363)*

This is in line with the finding in a small-scale qualitative study with focus group research that WfH conducted, in order to explore and better understand what drives participation in walking schemes, which claimed that there is a sense of reliance and 'loyalty' among walkers. The report argues that this feeling might be due to the age of the participants and the sense that it is not 'acceptable' to disappoint one's social cycle (Hynds & Allibone 2009: 7).

The dominant element within walking schemes that emerges is the social element and not physical activity. The motivation is mostly to socialise and contact people and not solely to exercise, although the benefit of physical activity exists. All interviewees mentioned that the participants were receiving the health benefits of exercise without realising it. It also appears that they received something other than health benefits. Case studies of people were

often about how the project helped them to overcome grief from spouse separation for instance and how the project brought them back to normal life by offering a good opportunity for social contact and new friends. So walks were beneficial for the mental health of participants as well.

Summarising, the social element of the walks is a mechanism that enabled the operation of the WfH project.

Challenges/Mechanisms disabling the impact of the WfH project

In the previous sections the mechanisms with an enabling impact on the project were examined. Such mechanisms were the 'belief' in the project, the properties of walking as a form of physical activity, creating 'win-win' arrangements with the communities, the need for time, the WfH brand and marketing strategy, the flexibility, the community champions, the volunteers and the social element of walks.

In the following sections the challenges as they were elaborated by interviewees will be presented. These challenges represent the mechanisms which had a disabling impact on the operation of the project.

Formation of 'cliques'

A challenging situation for the operation of the project was the creation of friendships and the strong social relationships among specific participants within the walking schemes, that made the rest of the members of the walking scheme feel isolated.

These were the so-called 'cliques', according to interviewees, which sometimes functioned as barriers for new participants, because they created difficulties for newcomers to break into these existing networks of people. For

this reason, this fact is a mechanism with a disabling effect on the operation of the project.

Distance between national and regional teams

Another challenging issue within the project was in relation to the distance between the national team and the people in the regions. One senior interviewee who was in the central team but in the past had worked in a region, named it as the 'central team mentality', by which was meant that the central team is detached from the teams in the field and from the practical operation of the walking schemes:

This observation was made by the two interviewees who were in the central team but not the rest of the interviewees who were in the regions. It is possible that the employees in the national team at some time felt that they lost sight of who they were actually delivering the project to, since they were not contacting people in the walking schemes.

Another issue that enhances the sense of distance is the type of operation in relation to certain functions of the project. As an employee involved in the region with a background in the volunteer sector said, there was a feeling of being a 'number', because many activities such as human resources were assigned to third-party organisations and there was no personal contact with WfH employees. The sense of disapproval with the working model of WfH stems, probably from the fact that the interviewee had a volunteer sector background and the usage of allocation services, seems an odd model of operation.

Although WfH had sufficient financial resources to operate during its first phase of operation, as most of the interviewees admitted, there were

many issues to resolve on the way to setting up a national program, capable of coordinating regional schemes across the country. One of the basic issues to be solved was communication between the national team and the regional teams:

> *'… how do you get messages out to regional teams, how do you stop the regional teams becoming separate entities, how do you make sure that the eastern team is doing the same thing as the south western team, how do you make sure that the WfH there looks the same as it does there?' (WfH4, line 410-414)*

The same interviewee noted that one of the things that had a positive impact on the project were the two general assemblies that took place to strengthen relations among employees. Thus, one way of working out communication difficulties and promoting a common understanding of WfH's agenda among employees, is two general assemblies, which due to cost reasons, took place only twice.

In this section the distance between the national and the regional teams, as a mechanism with a disabling impact on the operation of the project was analysed, as well as some strategies which were used by the project to ameliorate this impact.

Outcomes

In this section the views of the interviewees on the outcomes of the project will be examined and when in their opinion the targets were fulfilled in relation to the targets of the project as provided by the government.

An indicator used by interviewees to describe the project's success was in terms of expanding its walking numbers. However other aspects of success were used, such as the enjoyment of the participants, the value they ascribed to their participation in the walking schemes and the benefits on their physical and mental health.

> *'…is interesting how you measure the success …but I think ultimately it's about the enjoyment that people get and the sense of value that people have for the scheme on the ground and ultimately the…the effects of that so, hope that, hopefully the results are better health, physical, mental health …which is harder in the long term, is a more of a long term evaluation isn't it really?' (WfH2, line 711-718)*

According to a senior employee from the national team the funding was provided on the condition of increasing the numbers of walkers by fourfold, whereas WfH had managed to increase it by twofold to about 75,000 walkers.

However, the reason for the funding withdrawal seems less possible to have been related to the project not hitting targets in terms of numbers. The funding was provided for three years and the withdrawal of funding was decided after eighteen months of the project's operation. Most of the interviewees seemed to allocate the blame on the Department of Health's decision to drop the funding to the wider context of cuts in government spending, especially in prevention: *'This is the area [prevention] they cut at the moment' (WfH6, line 658).*

In this wider context of austerity and extensive restructuring, it appears plausible that the project would be the object of a more scrutinising attitude from the Department of Health. The senior employee who was quoted above that the project was not meeting the targets in terms of walker numbers, also provides some insight in relation to the qualitative targets of the project. The question and the reason for the removal of funding appears to be whether the project was targeting those who were already active instead of the non-active people:

> *'I think one of the concerns of the Department of Health was 'well do you …how do you target obese people who haven't walked for three, four, ten years, how you get to those people and we were making some headway but probably not the radical changes of behaviour that they were wanting to see. They wanted to see somebody going from no walking in the last ten years to twice a week or something. And we were taking people who walked once a week and seeing them walk twice a week or three times a week…' (WfH4, line 550-557)*

According to this view, the project was not hitting the target group: people who did not exercise at all, but the ones who are already active. Besides, as mentioned by other interviewees too, the project was not particularly successful with GP's referral schemes in all areas, probably due to lack of incentives to do so during the specific stage. It was admitted that incentivising GPs to cooperate and work better with walking schemes can be a sustainable source for walkers in the future.

It appears as though the project management team had adopted a softer – if this characterisation is valid – approach with a health project in order to establish its presence to the public. In contrast, the Department of Health probably required a more dynamic approach.

However, another senior employee felt there was evidence which showed that the project was particularly good at putting people that do not exercise into it and that it was a good means of introducing people to physical activity:

> *'What it's being shown to be good at, is getting people from nothing to something …so I think it fits really well in a whole care pathway…in that …WfH is here at the low-end of the spectrum getting people starting up from doing nothing to something …but it should work as a stepping stone then to be able to pass on to other activities where people can take on and then do more.' (WfH5, line 172-176)*

Apart from that, the same interviewee illustrates the fact that the WfH project was recognised as a project model from national bodies, particularly for its specific function: to be able to initiate exercise for people who did nothing before and thus act as a 'stepping stone from nothing to something'.

This conflict of different explanations that is emerging above is really interesting and striking for its expanse. One likely speculation is the different disciplinary approach of the interviewees – a public health approach versus a business approach – to contribute to the different framing on the issue of funding withdrawal, irrespectively of the real reasons that the Department of

Health based its decision. As explained previously, amid an economic crisis, the Department of Health might not have been concerned if the project was indeed hitting its targets; in the general restructuring, as it was formed from the economic and financial crisis, WfH ceased to be in the policy agenda.

Summarising, in this section the different views of the interviewees on the outcomes of the project were examined as were their assessment on the reasons the government withdrew the funding of the project.

Sustainability

In the following section I will examine the mechanisms which emerged that produced the conditions for a sustainable operation of the project.

WfH was under extraordinary circumstances during the time the interviews took place, which I was fortunate to capture. These specific circumstances represent a real experiment of a project going through change. Operating with reduced resources could test the capacity of its management structures, its operation efficiency and finally, if it really possessed a sustained approach.

Although, to a certain degree, it was expected to be heard from the employees that the project is indeed sustainable, what is rare is to be able to witness and capture a snap of the effects of the changes on its operations. I could witness how the project behaved with no funding, with a lack of advisors and walk coordinator support.

WfH provided the framework, the umbrella national organisation, which had an enabling and supporting function. WfH did not turn the wheel itself but put everything in place and supported the people who were going to turn the wheel themselves, thus the partners in local community, health authorities,

the volunteers and various other organisations or bodies who refer the public to walking schemes. This was the basic capacity of WfH which appeared to be obvious among interviewees as their general mission, as a Lead Advisor says below:

> *'The initial support that I offered them they took, and they use and you know, and they basically develop their schemes so now then they don't rely on me quite so much as now, and they can go away and do their own thing and that is sustainable really.' (WfH2, line 55-58)*

Most interviewees, as it became apparent, agreed that the project is sustainable mostly because it doesn't need extensive funding, because it is based on volunteers and because the schemes are taught to go on independently by embedding them within local communities. Interviewees explained that the project activates local authorities, local groups, networks and their resources. The senior interviewee below said that the project provides the 'glue' to keep people in communities together and this function itself appears to work as a factor contributing to sustainability too.

> *'I think if we were trying to glue back together our communities, this type of project which uses …people from communities to help their own …eee their own neighbours, their…you know, people that they live with … it's just a perfect model to try on…it's big society.' (WfH5, line 499-504)*

WfH tries, as most of the case studies in the WfH website reveal, to bring people together in their communities using walking as an excuse. This excuse of physical activity is thus given a social identity and the core function of the project is to eventually create the social conditions for the participants. The views of the interview below encapsulate this function:

> *'...you have to set up the social aspect in order for people who are to change to be able to change. I think the social part, the cultural …idea of physical activity or eating healthily is a massive area....'*
> *(WfH5, line 386-387)*

A project that creates for people the social conditions within communities in order to participate in a health-promoting intervention appears to possess potential for sustained operation.

In the path of fulfilling this function one of the strengths of the project appeared to be the umbrella scheme of a national organisation that acts regionally and delivers by adapting to local needs. The need for 'central guidance' in order to sustain the national character of the project was mentioned by the interviewees as very important. It appears that this is linked to the need to preserve the national identity of the project and the sense among participants of belonging to a national organisation. Besides, as I was told the schemes that operated alone and didn't have the contact point of an organisation collapsed and didn't manage to sustain their operation.

There was the belief that the project would 'degenerate', unless there was some funding to keep the training of walk leaders in place, which was

analysed elsewhere and was identified as a key factor in order to sustain a constant flow of walk leaders.

As a result, the provision of a certain amount of funding in order to afford the cascade trainers is apparently a key factor for the sustainability of WfH.

Summarising, the mechanisms that contribute to the sustainability of the WfH project and the ability of the walking schemes to operate independently, are the emphasis and the reinforcement of the social contact among walkers in order to provide the social glue from inside the community to sustain participation in the schemes. Another mechanism is the assurance of a small amount of funding in order to support training for the cascade trainers. One more is the offer of a clear value package in order to maintain the commitment of the stakeholders and finally the maintenance of the national organisation in order to provide a reference point for the walking schemes.

Summarising the operation of the WfH project

Summarising the operation of the WfH project, it is a project that has the aim to enable and support communities by providing resources and expertise to recruit participants and walk leaders and operate walking schemes. WfH had the structure of a national organisation which coordinated regional teams. The possession of a dedicated and enthusiastic team was a positive factor for the operation of the project. The project created ‘win-win’ conditions with an attractive value package in order to engage communities and thus managed to identify walk coordinators who acted as community champions. The friendliness and welcoming attitude of walk coordinators emerges as a key

factor for recruiting participants and volunteer walk leaders in the walking schemes. The project brands the social element and not the physical activity benefits. Participants are motivated to participate by the social element of walks where people walk and socialise in a friendly mood. This aspect further reinforces participation and recruitment of new participants within communities is increased by word of mouth. Time emerges as the factor which allows the walking schemes to become embedded in communities. The project has an increased ability to set up and grow walking schemes in settings where a previous context of walking schemes existed. The capacity of the project to train walk leaders appears pivotal in providing a constant flow of volunteer walk leaders, who develop from the participants' desire to give something back to the project. From the operation of the schemes, inspiring cases of participants, who were positively affected by the project, emerge. This reinforces the perception of the employees that they make a difference. The perception that their work has an impact maintains their dedication and their belief in the project. The communities with pre-existing walking schemes in combination with responsive and committed local authorities offered favourable conditions for the further development of walking schemes.

These mechanisms summarise how the project works, and emerge as the key factors which explain the project's operation.

Update – situation of WfH six months after the interviews

In April 2012, it was announced that the new host who would take over the national WfH centre was the walking charity 'The Ramblers' and the project would be funded by the charity dedicated to support people with

cancer, the ‘Macmillan Cancer Support’ (Walking for Health 2012b). Quoting from the announcement on the Ramblers website:

> *‘Activities like health walks are especially beneficial for those with long-term health conditions such as cancer. Ramblers will be working with MacMillan to extend opportunities for the two million people living with and beyond cancer to join health walks.’ (Ramblers 2012)*

On the website, there is also reassurance from the new host that the open and free character of the project would be maintained (apparently due to concerns raised by website visitors due to the operation model of Ramblers, which is based on fee membership).

It is presumed that there will be an effort to preserve the character of small health walks in contrast to the demanding walking practiced by the Ramblers walking groups. Apart from that, WfH targets people with cancer. The social character of walking could be particularly beneficial to people affected by cancer because, through organised walking, they can share experiences about their illness and at the same time benefit from low-intensity physical activity. It will be interesting to see how the WfH project will be transformed in its new era of operation and how it will manage to integrate this target group in the walking schemes.

Chapter 7: Discussion

In this chapter I will overview the use of critical realism and in what terms it has been useful after I remind the reader briefly of the journey of this thesis. I will elaborate the learning from the analysis of the three interventions, in the form of a conceptual synthesis of broader and more abstract conclusions in relation to the social occurrences they appear to connect. Finally I will present the final conclusions.

Introduction

In this thesis I have tried to take an innovative approach to looking into interventions to prevent obesity in European countries. The purpose of this thesis is to apply realistic evaluation based on critical realism in order to understand the nature of effective interventions to prevent obesity in European countries.

In order to do this I needed case studies and thus I did a systematic literature review of all interventions that prevent obesity in European countries with a structured set of criteria, in order to select case studies for this research. This set of criteria came out of my understanding of critical realism and realistic evaluation. The criteria related both to the scientific and pragmatic aspects of interventions that prevent obesity in order to pick up the proper case studies for realistic evaluation in a systematic and structured way. From the application of these structured sets of criteria, three interventions emerged, which were sorted out as the case studies of my thesis: the 'Healthy Weight Communities' (HWC) project in Scotland, the BIG ('Bewegung als Investition in Gesundheit') project in Germany and the 'Walking for Health'

(WfH) project in England. The Paideiatrofi project in Greece was used as a pilot study. Apart from this systematic literature review which is part of the method that I used to select the case studies, a review of the literature was obviously conducted to set the intellectual background of my research.

As mentioned above, the aim of this piece of research was to examine what critical realism brings to understanding the important components of these case study interventions to prevent obesity. In order to arrive at this aim, I developed an interview topic guide, based on the key concepts of critical realism and realistic evaluation of 'context', 'mechanism' and 'outcome'. I tested the interview topic guide with the help of the pilot study. Then, I identified key people involved in the organisation of each of the three selected interventions and conducted 26 semi-structured interviews with them. For the analysis of my qualitative data, I attempted to link the concepts of critical realism and the realistic evaluation approach with coding strategies from grounded theory (Glaser & Strauss 1967). As I reflected on the analysis of the three interventions, I realised that, interestingly enough, common themes existed across these three interventions. Thus, in the following section, I will reflect on the learning gained from practicing the critical realism framework of thinking on the three case study interventions and how this learning could link to broader and more abstract social phenomena.

Use of a critical realism approach

The application of critical realism as a framework to view, examine and explain the reality of interventions which aim to prevent obesity in communities, allowed me to acquire a particular vision of the knowledge in relation to how these interventions worked. The framework of critical realism

shaped my way of thinking and moulded the way I approached these interventions, the kind of questions I asked my interviewees and the way I associated my data to produce explanations on how these eventual interventions had produced their effects. Having said that, I would like to view once more my findings through the lens of critical realism and this time attempt to synthesize the independent conclusions of each intervention into general conclusions about the social phenomena with which these conclusions might relate.

In the literature review I elaborated on how the researcher who uses critical realism views the reality. There, I supported that in critical realism *'society is both the ever present situation as well as the continually reproduced outcome of human agency'* (Bhaskar 1998c: 215). Thus, my duty, as a researcher who attempted to apply critical realism and in that respect understand what 'was going on' in these interventions, was to actually gain knowledge of the interplay between the *'ever present condition'* and human agency (Bhaskar 2009).

In order to achieve this, I used realistic evaluation. Realistic evaluation claims that it places its role as a '*continuation along the road of driving realism into research practice'* (Pawson & Tiley 1997). In that respect, I used realistic evaluation as a theoretical 'tool' in order to conceptualise different hypotheses on the most probable configurations of context and mechanisms and make sense of the outcomes in each of the three interventions aimed at preventing obesity in their contexts. I conceptually attempted to configure the impact of the specific contexts and conditions of each intervention as well as the interaction of the certain factors which acted as generative mechanisms to

create particular events or outcomes. Under these circumstances, I constructed empirical hypotheses to explain the outcomes of the interventions through the interplay of the ever-present social structures the way they were expressed from the contextual conditions of each intervention, with the products of human agency the way they were expressed and revealed from the generative mechanisms in action.

The nature of the knowledge I tried to gain was grounded on the understanding, the opinions, the beliefs, the judgements and the experiences of the people involved in the projects. What I then attempted to do was to use the understanding of these people involved in the interventions, in order to make sense of the knowledge that exists in these interventions and make configurations which are linked with more general categories of phenomena and explain the reality of these interventions. My task by using critical realism was to try and make sense of the knowledge of the reality that existed, regardless of people's representations of it, (Cruickshank 2003) as shown earlier in the literature review chapter. As a result my endeavour was to use this knowledge the way it was conceptualised by the participants to uncover the real social phenomena which become apparent through their effects. Since reality in critical realism is constructed from generative mechanisms which explain the social structures, I pursued these three interventions to uncover the generative mechanisms which acted and produced certain events: how people who were involved in the interventions reproduced existing practices and norms or acted to transform the social structures; how, by doing this, people made the interventions work and increased or reduced their potential to produce certain effects.

In the previous three chapters I analysed in detail the three interventions and explained separately for each intervention, how they acted at their respective community level and managed to enable individuals to embed change in their daily practices. I realised that a number of common themes emerged across the three interventions, which was intellectually a very exciting finding. As I reflected on these common themes I felt that I could connect the separate themes and bond them to a set of broader and more abstract categories. Thus, these common themes could be grouped in the themes associated with the social structure, with the human agency and with the emergent outcomes and their autonomous powers.

Social Structure (Pre-existing environment/organisational model/creating win-win conditions/planning for sustainability)

As mentioned above, at the one pole of interplay all those factors which represent the social structure and how these factors constrain or facilitate human action can be found.

In this core category of factors associated with the social structure, I came to conclude that all three projects were initiated into an environment which existed as such, before the interventions. The three projects tried to initiate a form of action (to prevent obesity and promote healthier habits) into an established environment of norms, habits and conditions. In the analysis of the three interventions, I commonly called this the ‘existing background’. The existing background appeared to have significantly influenced the realisation of all three interventions. By existing background, I meant in particular the resources, the public reasoning and all sorts of existing capital which gave birth to the ideas, the motivation and the will to set up the relevant project.

In the case of BIG, the project took place in a city (Erlangen) in which physical activity and integration of migrants was high in the priorities of the community agenda:

> *[In Erlangen there is a lot going on in the area of sports promotion, or promotion of integration and there, for this reason, the know-how and the willingness to set up such a project is higher than other cities...] (BIG1, line 324-327)*

Actually, the city of Erlangen according to interviewees has been a model city for the implementation of the BIG project. In this context, it was easier to find support from the local authorities to set up the project. There was increased acceptability, sensitivity and increased reflexes in relation to why public resources should be spent on women in difficult life situations, a majority of which consisted of women with migration background. Additionally the positive image of sports and the active support of any efforts related to physical activity has been part of a context that played a decisive role in the implementation of the BIG project:

The HWC project was implemented in Scotland, a country that delivers sophisticated public health services by health professionals possessing an advanced public health understanding. In the section ‘Level of public health discussion’ in chapter 4, it was showcased that a sophisticated understanding of obesity was apparent by the language used from interviewees that did not even have a public health background:

'...suddenly realised that what we were doing in … green spaces would actually influence weight.' (HWC6, line 66-67)

In the communities where the HWC project was implemented there was an existing culture of partnership working within the community services. The institutional memory of creating partnerships for the provision of services to the community as well as the awareness among different services about how other services worked was embedded:

'…the council has... supported that way of working for a long time, so it is probably more of a historical thing… It wasn't, wasn't a completely new way of working.' (HWC7, line 643-645)

In that respect this background gave birth to this type of project which utilised this type of context and took it to the next level of partnership. In fact, it seems likely that the character of this particular intervention would not translate easily to a different milieu, due to this sophisticated public health context and this existing culture of partnership working.

In the section 'Context in the tradition of walking' in chapter 6, WfH is portrayed as having developed in a country where organised walking was more than an innovative idea and walking schemes existed already. In particular, it emerged from the interviews that the communities which had an established system of walking schemes, had local authorities that were responsive for the idea of walking, engaged more easily with WfH and could find more easily, community champions to commit to the project than those communities which didn't have any walking background:

Thus, given the existing commitment, the walking schemes in these communities proliferated more quickly and had within a short period a respectable number of participants. From the comparison with other communities with no walking background, it was evident that it required more effort and the mobilisation of additional community resources in order to set up new schemes.

It is evident that the acceptability was high and the mobilisation of resources was a more viable and attainable outcome because the pre-existing environment in all three interventions was fertile and already inherently possessed the ability to embrace and embed the social action induced by the intervention. The importance of contextual factors is analysed and recognised as a decisive parameter by Hawe et al. (2004) who tried to identify which particular factors promoted the effectiveness of an intervention related to the health of mothers with new babies.

I would characterise this existing environment as the 'external' social structure that embraces the operation of the interventions. Thus, after examining the external environment in which the three interventions were initiated, I would continue to what I call the 'internal' social structure of the interventions. All three interventions had a particular organisational structure, a set of structural propositions and a model of operational rules under which they functioned. This distinctive organisational model offered both benefits and disadvantages for each project.

Starting from the HWC project, there were the community teams consisting of a steering committee setting the strategy and an operational team headed by a project manager responsible for the execution of the

project's targets. In terms of structure, it resembled the organisation model of a corporation. It appeared to enclose a democratic model or hierarchy because it consisted of teams which were reporting to teams. The success of the project was an issue of efficacy and the degree to which employees were fulfilling their roles' responsibilities. It was very important for the project to have an experienced and active project manager, but according to the interviewees, the success of the project was shared among all employees fulfilling their roles efficiently. Thus, as I was told, in each one of the four communities it was important to have in place a board which consisted of experienced individuals that, after having examined the results of the community consultations, were able to set appropriate directions and targets. Equally important was the existence of an execution team which was active and capable of translating directions into actions. However, for such a project to operate successfully, it requires maturity in terms of public health services and structures, as well as the organisational sophistication to work effectively and relatively fast. In the HWC analysis chapter of HWC, the project was shown to bring partners together from different community services with an intense focus on healthy weight within a healthy lifestyle remit. According to the analysis on the pre-existing environment, HWC operated by taking advantage of the existing culture of partnership working and cooperation among public health services. Moreover, a reason why such an organisational structure was possible was the pre-existing capacity of community authorities and services to collaborate and work in partnership.

The BIG project, quite differently, was a university-based project initiated by the Director of the university department. In chapter 5, which is

about BIG project, the Director was shown to inspire his team with the project's concept, warrant the funds for the project, initiate and coordinate action within the university team and with the community partners. Although the plan was that the project would migrate to the community sports office at some point, the project started and functioned for quite a substantial amount of time, as a one-leader model. In other words, in order for such a project to happen, it required a personality with the corresponding abilities and capabilities as well as the political capital to involve those who would undertake and fund the project in the future. At a later stage, due to the participatory approach of the project, which involved key community players in the participatory sessions, the project could successfully be transferred to the community sports office, where until today it works independently of the university, after which it would be transformed into a community-led project. One could say that the organisational model at its first stage of being a one-leader model is less democratic compared to the HWC project. However, due to the fact that BIG was a challenging project in terms of set-up and implementation, the one-person-leadership was probably suitable according to the analysis of the interviews because it utilized the know-how and the political capital of the project's Director to solve the problems. Furthermore, this model proved to be effective if the ultimate purpose was to successfully transfer the operation of the project into community premises. The fact that the transition to another organisational model, based on community resources was integrated in the project plan, probably proved to be the right continuation for a sustainable operation of the project. Nevertheless, it is tempting to suggest that the one-leader model would be more prone to discontinuation of

the project due to the likelihood of a lessening of commitment from the side of the leader.

WfH had the hybrid structure of both a national central organisation as well as a regional structure with local teams. In this model, the national team directed the project and provided the core functions such as marketing, evaluation, accreditation and training. According to the interviewees, the existence of a national team created a feeling of assurance and belonging. However, the organisational structure of the project included regional teams which coordinated action on the ground informed by a local understanding of the regions' needs, adapted to local requirements. However, although this structure had benefits for the operation of the project, it also had some drawbacks, not due to the structure *per se* but in its execution approach. According to the analysis chapter of the project, I was told that due to the size of the project (about twenty-five people in the national team and eight regions with about five to eight people each), the national team lost contact with what was happening in the regions; at the same time, interviewees who were coming from the regional teams said that they felt isolated from the national team. This was a finding which was independent from the working climate among the project's employees; I was told that it was very friendly and collaborative. Only when the WfH scheme went down to twenty-five people from eighty, due to the gradual shrinking of the project, did the cooperation become more personal among national and regional teams. Thus although the project put the foundations of its achievements on this size of employees, it was reported to me that the shrinkage and the subsequent removal of the middle regional level of management actually was a good thing for the

operation of the project. The fact that the numbers of walkers continued to increase was, however, attributed by all interviewees to the work undertaken from the 80-people team. But this view should not be taken for granted because it is also justified to think that the size of the project team was so large that it could actually be similarly effective with a smaller, more coherent and effective team. In that case, is there an optimum team size in order for projects to operate effectively? A management-related meta-analysis undertaken on the effectiveness of teams and its relation to the team size appears to be divided on whether larger teams are less effective than smaller teams due to a possible loss of coordination in larger teams (Stewart 2006). Another relevant factor in this division appears to be the difficulty of the tasks and the uncertainty of the environments. A study conducted in relation to research performance and its relationship to team size, considered academic and research environments which have the element of uncertainty (von Tunzelmann et al. 2013). WfH as well as BIG resemble such environments. However, their results suggest that there is little benefit in using teams of above six to eight persons, since the benefit per capita is usually small. These conclusions are in agreement with an interviewee in WfH that had a corporate management background and who admitted to being very familiar with such situations in the corporate environment. The problems were related to communication gaps and lack of awareness in relation to other colleagues' roles. The interviewee below is quoted as admitting the situation to be better in terms of cooperation when they became a smaller team:

> *'…the challenge has been getting together, feeling like a team, but it is easier in a smaller team as we are now.' (WfH4, line 310-311)*

This leads to the conclusion that the organisational structure of WfH inhibited the realisation of the project's targets at the beginning. It imposed impediments such as difficulties in cooperation and it reduced the capacity of the agents to communicate effectively. Thus, when the size of the team was reduced, agents developed an increased capacity to act and regain their roles within the project. The solution to this structural issue was not given by the agents but was imposed from the changes in the governmental policies and the way community interventions were forced to seek funding for their operation elsewhere.

From the analysis above, it is evident how the 'internal' social structure of the interventions with their particular organisational structure and their model of operation, influenced and defined the way agents functioned. However, there were situations where the agents of the project stood above the social structure and produced the solutions in issues related to social structures. Moreover this effort to produce solutions has been the struggle of the projects' agents to reconcile the external social structures (existing environments) with the internal organisational structures. More particularly in all three interventions I encountered the theme of the 'win-win' conditions; in the BIG and WfH project, it emerged as a similar theme, whereas in the HWC project, there was a slightly different dimension, due to the character of the project. According to interviewees in all three projects, creating 'win-win' conditions involved ensuring these situations, where both the stakeholders invited to participate in each project and the project itself benefited from each one's commitment.

In the section ‘Creating win-win situations’ in chapter 5, concrete examples were analysed of what a ‘win-win condition’ looked like in the BIG project. The BIG project asked for political support among political representatives of the federal state, by putting forward that they could use the claim that they provide for the socially disadvantaged and as a result, the whole federal state could gain national prominence. In another ‘win-win’ situation, the BIG project attracted and used the help of the sports clubs for the project, on the basis that the sports clubs could achieve new sponsorships by marketing their commitment to the project’s goals.

In WfH, a similar situation emerged from the analysis in the ‘Sustainability’ section in chapter 6. The project offered specific benefits in order to attract stakeholders who in turn would be useful to the project. In the example cited, it is shown how WfH managed to establish a meeting point for walks at a supermarket of a well-known chain. The superstore would benefit from the increased sales and the related publicity. In turn, WfH benefited from the discounts that the superstore offered for the after-walk coffee meeting, the convenience it offered to the walkers to bundle the day’s shopping with the walks and the access to advertise its operation widely in the superstore premises. Such arrangements where both parties benefited from their partnership were elaborated in the interviews as ways to both establish the presence of the project and increase its sustainability.

In HWC, it emerged that such arrangements were not required as such. The involved stakeholders engaged in the project and were committed to its aims, without any obvious benefit. The ‘win-win’ situation, in order to form partnerships and bring partners together, appeared to be the formation

of a holistic approach, where different community services came together under the remit to promote healthy weights. This holistic win-win condition appears to be unbreakably related with the maturity of public health understanding in the involved stakeholders of the local authorities.

In the same direction, it emerged from the analysis of the three case studies that the agents involved in the interventions intended to create the matching structures, to the targets of each project in order to sustain its operation in the future. More particularly, all three projects made a systematic effort not to be one-off projects and they had integrated very early in their design the contemplation for a sustained operation of the project and potential impact on the recipients within the community. The projects sought to ensure a sustained impact, thus a continuation in the effects of the intervention on the recipients through a continuation in the effects of the project. Apart from this, in all three projects, the attempt to link their agenda with policy agenda was also evident as was to find ways to introduce and link their change-mechanisms to the existing structural arrangements.

More specifically, BIG invited the target group, the political stakeholders and the local authorities from the beginning to the process of agreeing on the operation conditions of the project in the cooperative planning sessions. The project tried to ensure both the sustained continuation of the project, as well as its feasibility within community services:

> *[…they tried from the beginning to create sustainability for the project, therefore to involve the local community from the beginning, they had to ensure the funding for the set-up from the beginning…] (BIG2, line 72-74)*

WfH involved local authorities by ensuring within local authorities the existence of will and resources to operate walking schemes and worked out the capacity in local communities for the walking schemes to be able to support themselves:

> *'The initial support that I offered them they took and they use and, you know, and they basically develop their schemes, so now then they don't rely on me quite so much so now, and they can go away and do their own thing and that is sustainable really.' (WfH2, line 55-58)*

Additionally, the project could sustainably maintain its reliance on volunteers and retain a regular stream of volunteers at its disposal. In that way the project ensured that local communities could sustain the operation of walking schemes and walking schemes could keep going.

HWC put forward the strategy to incorporate and bind its messages into the current political agenda and action plan; this worked through strengthening the capacity within local communities. Also, the creation of partnerships under the common remit of 'healthy weights' acted on permanently keeping the subject high in the agenda of the authorities:

> *'...a lot of our partners have it in their plan, you know, the child obesity ....it is... you know, that is top of the agenda for more people, so that is something that is important for the sustainability.' (HWC7, line 810-812)*

Thus, the project assured that the strategic will to act on the healthy weight agenda would be maintained, coupled with the operational capacity within local authorities to continue partnership working. In this project, the significance of the project manager emerged for ensuring the sustainability of the project, as analysed in the section 'Becoming sustainable' of chapter 4. The project manager, apart from being the link that would keep the general overview, would also be the person accountable for ensuring that the partners would not return to working in isolation again. Shediac-Rizkallah & Bone (1998), in their study about sustainability of community-based interventions, analysed the factors which need to be considered for sustainability planning and differentiated in particular, the factors within the organisational setting such as the need to incorporate existing programs and services or the need for champions and leaders. In that respect the authors stress the necessity for a combination of structure and agency. In this study, the importance of beginning the integration of sustainability planning early within the intervention is also emphasised; a consideration which was central in all three interventions

Summarising, in this section some common factors among the three interventions were discussed, which were related to the social structure embracing them. These factors were divided into the external and the internal to the interventions, as well as into the factors which represented the efforts of the interventions to reconcile the internal structures of the projects with those structures external to the projects.

Human Agency (passion to make a difference/product champions/ influence of key people/ formation of cliques)

In this section I will examine human agency, the other element in the interplay between social structure and human agency. In the analysis of the three interventions, a range of themes emerged which indicated the strength of agency as well as its influence on the developments within the three projects. Margaret Archer (2003), in her theorisation about the relationship of structure and agency, supports that the social structures act in either a constraining mode or in an enabling mode. This mode comes in connection with the agents and it is up to agents to decide how to use and respond to those two functions. In other words the causal powers of structural factors to enable or to constrain are not inherent and can live inactivated if they do not come into correspondence with the reflexive pondering of agents on the type of potential reaction.

Primarily, the strength of human agency emerged through the existence of influential figures. Both the BIG and WfH projects have been linked to the existence of influential figures. In BIG, an important factor in the initiation and set-up of the project was, as I was told, the political capital, the expertise and the public acceptance of the Project Director. In WfH, interviewees referred extensively to the GP who was the pioneer and the initiator of the walking concept back in 2000. In both projects, these personalities have been the driving force that had the vision and initiated the projects. In particular and as analysed in the chapter about the BIG project, the sense of confidence of the Project Director derived from his professional experience, made possible his increased agency to override the opinion of authoritative international organisations and other leading German institutions.

In this sense the human agency appeared to be genuinely above social structures. This agency does not appear to be derived from the title or the institutional role of the Project Director, accounting for another sort of entitlement which allows somebody to trust that he/she is superior to the social structures, but appears to be a personal attribute, a product of somebody's experience and proficiency in a field. In that respect and in line with Archer (2003), the enabling influence of the context in Erlangen would have been inactivated if it wasn't met with the congruent human project and the ability of the agent to activate these influences in favour of the project.

However, in both BIG and WfH, the agency of these two personalities has been gradually replaced by structural arrangements, and thus both projects have been undertaken by permanent organisational institutions which undertook each project's operations. WfH was undertaken from the beginning by national organisations and BIG from the community sports authority three years later. In both projects, the initiators are not actively influencing the decision-making and the interviewees referred only to occasional advisory roles. It is worth asking if parallelisms could be sought in the sophistication of public health services and public health culture within one society, in the ability of one country or community to integrate relatively fast, the actions of influential personalities. Although there is a risk of comparing dissimilar models in the way the two projects started, I am inclined to believe that for BIG it was somehow essential to involve the existing community actors in order to succeed in integrating the project functions into community structures (the local sports authority). Although the context of the city was nevertheless that of a sports and physical activity-friendly community, the interviewees in

the academic area said that the country, as a whole, did not possess a similar health promotion culture, in contrast to other countries.

WfH as a concept, although the exact circumstances are not known, was quickly integrated under the umbrella of national organisations. The idea of the GP was met and realised within the structure of a national institute. This fact appears reasonable, taking into consideration the pre-existence of a generalised culture of walking in nature.

In the HWC project it was evident that the sophistication in health promotion services was at a high level. The actions focused on orchestrating them and channelling them towards the planned direction. The initiatives are stemming straight from the organisational structures and they are products of the interaction of agents within the structures.

Apart from these very influential and prominent personalities, the strength of human spark in the interventions could be seen from the impact of the product champions. As all three interventions sought to bring change in the respective communities, in order to achieve this change, the interventions used community champions, or as they are known in the literature, 'product champions', in different ways. In accordance with Schon (1963) who 'championed' this notion, a *'product champion is the person who brings change and innovation within an organisation by helping overcome organisational barriers and resistance'.*

Thus, all three projects appeared to have consciously made the effort to engage with product champions and used each one in a different manner. Compared to Schon's definition, all three projects used product champions more to the side of overcoming barriers in order to establish the presence of

the project and less for their ability to bring innovation. Dependence on champions' usage has been different, suiting the different aims and organisational structure of each project.

In that respect, in HWC, various people from the council served as linking persons who acted actively on establishing linkages among community services or coordinated the growth of partnerships:

> *'The project certainly needs the ...key champions ...and I would say that there is a couple of influential people within the council who would have been the kind ...championing the project…' (HWC7, line 273-274)*

In other cases, I was told that some high profile people like councillors, who had a less active role as champions, nevertheless, with their presence, provided credibility and publicity to the project. Thus, the dependence on the engagement of community champions was mostly aimed at the benefit of the project's public face and is not critical for the development of the project.

In BIG, the notion of champions was included in a different way. In the framework of the asset-based approach, the BIG project tried to utilise all relevant factors and resources which would foster the ability of individuals and communities to engage and sustain adequate levels of physical activity (Ruetten et al. 2008). The project gives its own name to these assets which are the 'social catalysts' and they actually come from the target group itself; thus they are women in difficult life situations as well. Their role differentiates them from that described in Schon's definition, in the sense that the social catalysts do not facilitate the project to operate by helping overcome barriers.

Social catalysts facilitate the aim of the project because they act towards reaching other women to the activities of the project, by using their extended social network and their sociable personality:

> *[...a woman from the target group, who had done a lot of advertising, therefore without her, this must be clearly said, she had brought us a lot of women in the project, because she had a lot of friends…] (BIG6, line 350-353)*

As the project progressed and the women acting as social catalysts were becoming empowered, some of them undertook organisational roles using their abilities to further empower and motivate other women of the target group. Thus, the role of the social catalysts is pivotal to the success of the project because it contributes decisively to reaching and engaging with its target group. Apart from social catalysts, in the analysis chapter of BIG, a description was given on how the project used product champions more traditionally, mainly in the form of political representatives. Such personalities helped the project to establish its presence in the community and overcome barriers connected to gaining access to various community facilities.

In WfH, the product champions were in the form of motivated employees within local authorities of the communities. Either the WfH personnel approached these motivated employees or they themselves approached the project by acting as community champions to help set up walking schemes within their communities. In the analysis chapter of WfH, a description was provided as to how these people (named as walk coordinators by the project) had the capacity to ensure funding for employing

walk leaders in the first place and could coordinate necessary actions to establish new walking schemes in their local areas. Often, they received training for walk leaders or cascade trainers so they could initially lead the walks or instruct volunteers to become walk leaders of the walks. The project was also based on walk leaders who voluntarily led the walks on a daily basis and acted in their personal social circles as champions, by recruiting new walkers and making them feel welcome on the walks. Thus, the role of community champions in WfH is, like BIG, decisive. It is differentiated from the definition of Schon (1963) of the product champions, in the sense that the champions are external powers, they are not situated in the WfH organisation and they do not seek to bring innovation. In contrast, given the enabling function of WfH, the project seeks to liaison with people acting as community champions, as a way to spread its presence.

However, as stressed in the literature chapter, agency modifies the world not only with one person's activity but also through the collective agency of a group of people, the so-called 'demographic agency' (Carter & New 2004: 5). In the case of the three interventions this collective agency was expressed through various ways such as the emerging passion of the agents to make a difference. Thus, the strength of human agency influenced the causal powers of structures through the attributes with which it was presented. In all three projects there existed a passion, a human spark, a dedication and a determination to work for the interventions.

In WfH the notion of belief was expressed particularly strongly and it is quite central as it emerged from the project's analysis. The employees appeared to be very inspired by seeing the impact of the project on

participants and this fact further reinforced their belief and dedication to the project:

> *'…and actually seeing that I was making a difference, going out and talking to people …(WfH4, line 622-623)… having people coming back to you and saying '...you saved my life …or changed my life' is …you can't ask more in a job I think.' (WfH4, line 873-875)*

What is important is that despite the fact that the project was ending and the feelings of frustration were apparent, these had more to do with the fact that the interviewees would not continue to work in something they believed in and not that they would eventually be losing their jobs.

In the section 'Trying to listen to the community' in chapter 4 about the HWC project, a strong determination to make a difference was identified which was apparent in those interviews as well:

> *'…it will be actually getting out there and doing something, involving the public basically and then starting to make a difference!' (HWC4, line 242-244)*

This determination though was not a characteristic of the interviewees who were employed specifically for the project, such as the project managers, but was apparent in the interviewees who worked for HWC on top of their job duties. It is also important to note that this element goes together with the fact that the partnerships were built with the help of existing working relationships and genuine and honest communication, as it emerged from the section on

‘Challenging situations’. Thus, this climate could only reinforce the determination to make a difference in the community with the project.

In the BIG project, this determination to bring about a difference was not expressed in the same way it was expressed in the other two projects. In BIG the determination to make a difference could possibly become obvious in the determination to tackle the plethora of challenges faced by the project. The interviewees stressed that they perceived the project as particularly difficult and challenging. Despite the structural obstacles that at times were deemed to be insurmountable, as was the case with the denial to access the swimming pool for the target group, the interviewees still described how they went on with finding different ways to make a difference.

However, human agency can also enforce adverse effects on the relationship with social structures, as seen in particular in WfH and BIG. The formation of cliques during the operation of the project’s activities is a phenomenon which was encountered in both the BIG and WfH projects. Participants created smaller core teams within the intervention groups according to their acquaintances and personal preferences and the rest of the team or any new entrants felt isolated. In the BIG project it was discussed only marginally; however, it should have been a reality in some exercise courses. The formation of cliques appears to be an understandable phenomenon considering that the message of the project was through word-of-mouth propaganda and through the network of the women acting as social catalysts. Thus, some courses might have been populated through peers, making the integration of new women not belonging to the network, more difficult, making them feel isolated. In chapter 5, about the BIG project, the

formation of cliques was deemed a possible explanation as to why the project did not manage to reach the 'poorest of the poor' as one interviewee criticised. Since the women who acted as social catalysts were relatively better educated and had a relatively better economic status, as interviewees reported, they should probably also have peers of equivalent education and economic status. In that way, these women didn't have access to the women belonging to the 'poorest of the poor'.

In the WfH project, many interviewees elaborated the formation of cliques as a more intense phenomenon. The formation of cliques was presented as a barrier to the integration of new participants:

> *'...you can get a bit cliquey … it might feel a bit excluded so that kind, sometimes, is a barrier to people joining...' (WfH8, line 386-389)*

This kind of outcome was also found in the operation of the Barnardo's children centres, a prominent charity dedicated to providing services for children. These centres are linked to the first 'Sure Start' Local Program in the UK. This report includes recommendations that are indented to guard the groups from the formation of cliques, a fact that implies the appearance of such phenomena during the operation of the groups (Barnardo's Policy Research and Media Unit 2011).

Although the formation of cliques was discussed as a negative development of the human agency, its eventual outcome could still remain a subject of human agency and management and in that sense it could turn to be positive for the operation of the interventions. The formation of cliques

according to demographic patterns, especially in the case of the BIG project which included women from diverse migrant groups, or the formation of cliques due to the existence of influential persons with established presence within the teams, could be an anticipated phenomenon which could be handled and used for the benefit of the project. A study by Hawe (2004) demonstrates how network analysis and thus the analysis of how people form groups or subgroups, can be very useful in order to coordinate and manage the dynamics of networks within the walking schemes or the fitness courses.

Summarising, in this section I examined some common factors among three interventions that illustrated the strength and potency of human spark. The impact of human agency was seen to be intense, able to respond to the influences and capable of embracing the conditions and bringing them to the benefit of the interventions' scopes. Thus the interplay between structure and agency was seen to be very dynamic and active. As Archer (2003) describes it, agents were able to act deliberately and initiate their influences over any constrictive and enabling causal powers of the structures embracing their projects.

Emergent outcomes (providing non-health-related motivations/being flexible/ need for enough time)

As analysed in the literature chapter, 'emergence' is an essential concept in critical realism which signifies the distinguished properties obtained when certain processes or people or perceptions come together (Carter & New 2004). Thus, the emergent outcomes have different properties and powers and they do not come up as the accumulated sum of their elements. The elements of setting, location or period, acquire a new meaning after the

emergent outcomes are formed and they entail the ability to formulate their constituents in novel ways (Carter & New 2004).

In this section I will analyse the emergent outcome of the interplay of human reasoning with the structural properties of the interventions. This certain interchange enforced a certain understanding of the motivations of the interventions and a new reasoning emerged in each one of the three interventions that proved to be a crucial phenomenon which increased the impact of the interventions.

The three projects articulated a particular reasoning for their target groups to become and stay involved, which was in addition to or went beyond 'do it for your health'. All three projects were branding something other than health values. Thus, preventing excessive weight or promoting physical activity, as examples of health messages, were not branded as the core values of the projects. The activities of all three projects were set up to be fully integrated in the everyday life of the community, so the projects sought to increase their potential to be more meaningful for day to day living.

The HWC project was interested in delivering a 'holistic healthy lifestyle' that was fun, creating enthusiasm, joy and bringing 'colour' into communities. The activities of the HWC project were used to bring communities together in the difficult conditions of winter and to create public interest in communities which lacked socialising activities. Apart from this, the project sought not to judge, stigmatise or dictate to people to do certain things for their health, but was trying to show how small changes, integrated into the daily lives of families, could still have a positive impact. Also, any vocabulary in relation to obesity and weight was deliberately avoided:

'...by saying that we are about child obesity then people who maybe don't feel weight is an issue in their family, they switch off and go on, that is not for us.' (HWC7, line 580-582)

The interviewee of one community explained that the project team even changed the original name of the project (which was 'Healthy Weight Communities') to avoid any possible associations with weight or that the project aims at fat people.

The BIG project gave value to the empowerment of its target group - women in difficult life situations - by giving them equal space with community representatives to participate and co-design the project's activities. Physical activity was integrated within everyday life activities in neighbourhood facilities and sports clubs. Later on, during the project's operation under the community authorities, physical exercise courses were used as the vehicle to integrate the target group into society by socialising them through sports opportunities and allowing access to sports facilities:

[...from the beginning we were pretty sure that this is not only about sports but about integration through sports too] (BIG3, line 455-456)

WfH branded the value of social contact and the strengthening of social relations within communities. The project pointed out the various cases of people who were benefitting largely through the social contact of coming together to walk in the community premises: *'…it filled a gap in people's social lives'* (WfH5, line 196). Looking at the target group which the project ended up

working with, namely people in their sixties and over, thus retired and often lonely, strengthening and expanding their social network was perceived by them as a strong motivation for continuous participation.

These findings appear to be in agreement with previous studies such as those discussed by Hillsdon et al. (1995) who concluded in their systematic review that physical activity should be 'enjoyable and convenient' and that walking was an activity that appeared to comprise many advantages. As Thurston & Green (2004) demonstrate in their paper about exercise on prescription schemes, there is a need to consider adults' lives more broadly and to recognise that a lack of physical exercise is more complex than merely a lack of motivation. More particularly, physical activity courses which offer opportunities for social networks, learning and enjoyable experiences appear to be more motivating for people to participate and adhere to them, because they offer a more satisfactory experience in daily life. As my own data suggests, the three projects focused accordingly on enjoyment and fun (HWC), social integration (BIG) and social contact (WfH) and they provided those motivations as the reasoning for the participants to join. These motivations, once in the specific context of each intervention, acquired distinguished powers and acted as a mechanism which had the causal power to provide reasoning and purpose to the people of each community to participate in the activities of the interventions. My findings appear to confirm these studies and highlight how interventions that consider health in more holistic terms and within people's lives act differently. Interventions aiming to propose changes towards healthier lifestyles appear to make more sense and

fit better into people's lives if they brand themselves with non-health-related motivations and provide reasoning that is not associated with health.

Another emergent outcome, which came to the surface from the analysis of the three projects, was the need for flexibility. In the analysis of BIG and WfH, flexibility was in relation to the projects' planning. In the interviews, the informants discussed the utilisation of a flexible attitude in response to the challenges that their projects encountered. Interviewees said that they didn't stay captured by the plan but they changed in order to achieve their targets through a different path. In the section 'Realization of the project' in chapter 5 about the BIG project, the university team modified the evaluation targets in order to avoid risking losing the trust of the target group for the sake of a planned randomised controlled trial evaluation:

> *[…we have often adapted the work plan… And this helped the project...] (BIG3, line 173)*

Rychetnik et al. (2002) highlighted the need to be flexible and to develop flexible approaches in order to address the complexity in community health interventions. They argued that randomised controlled trials couldn't address the inherent complexity in community interventions. Similarly the project management of BIG found that a randomised controlled trial would be an unsuitable evaluation method and would peril the targets of the project.

As far as WfH is concerned, the project had the flexibility and the ability to adapt to the local needs of the communities integrated in its structure. The organisational structure, which combined a national team with regional teams across the country, facilitated the ability of the project to adapt to local

resources and local needs. As a result, this flexible operational model resulted in each walking scheme to be able to function differently. Each walking scheme created different kinds of partnerships (local NHS, sports authorities, community schemes, etc.), cooperated with diverse types of walk coordinators and had varied operation times in order to be in a better position to meet the challenges and fulfil the needs of each area.

In the HWC analysis chapter, the theme of flexibility was discussed as having the character of adaptation but it largely had the character of 'working differently'. Each pathfinder community was free, thus in a flexible sense, to implement the project as it wished, as long it fulfilled the objectives it was given. Thus, this dimension is slightly different from the element of adaptation to the given needs and resources or modifying the work plan and following a different strategy in order to face the challenges. This flexibility relates more to the independence and freedom which each community was given in order to implement the project. Moreover, the project also tried to understand the needs of its community by conducting consultations and surveys within the community. This enabled the project teams to understand the needs of their communities and adapt the activities of the project accordingly.

This type of flexibility, which comes in the form of adaptability to all anticipated and non-anticipated changes that occur in a project's life, was also deemed in the study of Potvin et al. (2003) an essential *'condition',* which is so important that without this condition a project's existence is in peril. Despite a project's necessary pledge to organisational planning, this flexibility emerges as the necessary condition between the struggle of a project to embed its activities within the structural conditions of the context and the resistances

that this process of embeddedness encounters by any unforeseen obstacles and changes.

This emergent outcome of flexibility acquired distinguished properties once it was put in place. This implies that it turned out to mean different elements and acquired a different meaning after its realisation in the context of each intervention. Flexibility acquired a different causal power which was enforced according to the agency of people who practiced the flexible arrangements differently, according to the operational structure of each intervention, combined with the particular way reflexivity was translated by the recipients of the interventions.

Another similar element to distinguished emergent properties is ‘time’. ‘Time’, in all three projects, was not mentioned in terms of deadlines or falling behind the time requirements of the project delivery, since in relation to project management all the projects were fairly ‘on time’. Rather, ‘time’ was mentioned as ‘chronos’, the element which had the potential to create the necessary time period for the project to become embedded in the given context. In all three projects, time was needed to create the necessary intangible conditions for each project.

In the BIG project, time was needed to allow the openings, the ‘windows’, into the existing system, which would create room for possible opportunities to be brought to light. More specifically, accessing existing structures required identifying political windows and establishing ‘win-win’ situations between the operation of this project and various community actors. All this required time in order for these new configurations and interconnections of interest to gradually take place and reveal their effects so

that the project could gain the political support to enter the existing structures. The insufficient time for effective engagement with the involved stakeholders was emphasised as an important issue in the paper of Merzel & D'Afflitti (2003). They highlighted that the failure in many interventions was due to the fact that projects have an insufficient time horizon which does not permit the creation of 'readiness' in order to address and resolve the conflicts in the engagement of the associated actors.

Time also enabled the creation of conditions of trust on the part of the women who constituted the 'target group' within the BIG project. As time went by, the women of the target group trusted the motives of the project, felt empowered and were able to start acting as social catalysts, bringing more participants to the project. Apart from the target group, time was a necessary element among all partners participating in the cooperative planning sessions, to create relationships of mutual trust and reliance.

In the case of HWC, time was seen as essential for the people in the community to receive the new ideas of the project and absorb them. The cultural shift in terms of adoption of a healthy lifestyle that was actively promoted by the project is equated to social change which cannot be realised within a short timeframe. *'…social change takes a lot of time yeah?' (HWC12, line 467)*. Many interviewees actually agreed that for the proposed changes in the culture of the community, people would need probably a decade in order for them to become the norm: *'…to be a complete culture change but which will probably take a bit longer, probably a good ten years you know, at least to see that change happen...' (HWC5, line 124-125)*. Thus again in order for this cultural change to become embedded in the community and become a

measureable outcome, it needs time and cannot happen in a rush and within a short period of time.

In the case of WfH, time was essential for new walking schemes to be integrated in local communities. It is true that the project was set up and flourished more quickly in community contexts that already had 'fertile' ground for walking schemes, in the sense that they had already established walking schemes or they had engaged authorities and stakeholders, they possessed 'community champions', as well as enjoyable walking venues. However, providing the time and support was an important element in embedding walking schemes in communities with less of a supportive previous background. The provision of the project's resources and the practical support to the new walking schemes has to be continued over a period of time and then the potential for walking schemes to operate in a sustained manner increases substantially.

Thus, 'time' is highlighted as the factor which allows the necessary fermentations to take place to embed the intervention in its social environment. This appears in line with the conclusions from the Munro Review for child protection commissioned from the English Education Department in 2011. In this review, the need for time is emphasised for social workers to build relationships of trust with the families and the children. Spending time with children was deemed essential in order to engage with them properly, creating respect and trust, which would allow overcoming barriers and helping the users of such community programs effectively (Munro 2011).

Summarising, I would like to point again towards the considerably high number of common themes that emerged across the three interventions. This

fact was intellectually a very exciting finding. Reflecting and elaborating on these common themes I connected them to a set of broader and more abstract categories. Thus, these common themes were grouped into themes associated with the social structure, with the human agency and with the emergent outcomes and their autonomous powers.

Closing this discussion on the common ideas emerging from the three interventions, one could point to the 'specificity' of the above-analysed themes. One can argue that since we explore what works, for whom and why in particular cases of interventions, it is not possible to produce any conclusions that could have any general use. However, at this point what Pawson and Tilley state about the transferability of realistic evaluation's outcomes is very instructive:

> *'What are transferable between cases are not lumps of data but sets of ideas. The process works through the development of a body of theory which provides an organising framework which 'abstracts' from a program a set of essential conditions which make sense of one case after another' (Pawson & Tilley 1997: 120)*

Under this prism, the previous discussion of common themes represents a pool of general sets of ideas in relation to how, why and under what circumstances particular interventions aiming at prevention of obesity work. I will now elaborate a general concluding set of ideas from reflecting on the principal three core categories of social structure, human agency and emergent outcomes with which the common themes emerging from the analysis of the three interventions were related to. I came to conclude that in

relation to how interventions to prevent obesity act and within what framework of thinking and what practices enabled them to have the effects that they do have, apparently one size does not fit all. Interventions take place within contexts with their own history, which however, can be modified by the authentic passion and inspiration of human agency. As a consequence, people matter enormously and projects would collapse if the human spark was not there to create, modify or transform the circumstances. This interplay of agency with structural conditions can create sustainability by generating the matching structures to the targets of each project in order to sustain its operation in the future. And history continues until these given contexts are again transformed from other new future agents to serve the targets of further 'human projects'.

Conclusion

To my knowledge critical realism as a philosophy and realistic evaluation as a framework of analysis have not been applied before in the area of obesity prevention. Realistic evaluation with its context, mechanism and outcome configurations has offered a framework which navigated how I selected my qualitative data, how I conducted the analysis and finally, how I drew conclusions for the three unrelated interventions, acted at their respective community level and managing to create these structures which would be enabling for the individuals in order to embed change in the daily practices.

The themes that emerged from the analysis of each intervention coupled with the conceptual synthesis to a set of ideas common to all interventions, were promising pointers that realistic evaluation can increase

our acumen on how preventive interventions for obesity act and produce their effects.

Critical realism and realistic evaluation proved to be a conceptual guide and approach with an illuminating and instructive power which can enlighten not the effects of sustainable interventions to prevent obesity, but the way they are produced by the interplay between structural conditions and people as agents. Thus, it provided promising indications that it enables the researcher to answer not the 'if' interventions work but the 'why', 'how' and 'under what circumstances' interventions to prevent obesity work. Studying the context, the mechanisms which enabled or constrained the impact of one intervention can provide practical insights – as was the case with the Healthy Weight Communities project, the BIG (Movement as Investment for Health) project and the Walking for Health project – into the way community projects for prevention of obesity operate and produce particular outcomes. Such practical insights can inform policy response and contribute to the formulation of effective policies against the prevention of obesity.

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Appendices

Appendix 1

Search strategy for the systematic literature review

1. obesity/

2. adiposity/

3. weight gain/

4. weight loss/

5. body mass index/

6. (obes* or adipos* or overweight* or over weight*).ab,ti.

7. (Overeat* or over eat* or overfeed* or over feed*).ab,ti.

8. (bmi or body mass index or anthropometric).ab,ti.

9. weight gain.ab,ti.

10. ((bmi or body mass index) adj2 (gain or loss or change)).af.

11. (weight adj (reduc* or loss or losing or maint* or decreas* or excess or control)).af.

12. 5 or 8 or 2 or 6 or 9 or 11 or 1 or 3 or 10 or 7 or 4

13. sports.sh.

14. exp exercise/

15. exp physical exertion/

16. exp exercise therapy/

17. physical fitness.sh.

18. "exercis*".af.

19. (physical activity or physical inactivity).af.

20. (sedentary lifestyle or sedentary behavio*).af.

21. (walk* or jog* or swim* or danc* or train* or cycl* or bik* or Nordic walking).ab,ti.

22. 19 or 13 or 16 or 20 or 21 or 17 or 14 or 18 or 15

23. (walk* or jog or jogging or swim* or danc* or train* or cycle or cycling or bik* or Nordic walking).ab,ti.

24. (fitness adj (class* or program*)).af.

25. (physical therapy or physical training or physical education).af.

26. (weight lift* or strength train* or resistance train*).af.

27. (aerobics or aerob* training).af.

28. (moderate to vigorous physical activity or moderate-to-vigorous physical activity or MVPA).af.

29. (health-enhancing physical activity or health enhancing physical activity or HEPA).af.

30. (leisure time physical activity or leisure-time physical activity).af.

31. 30 or 27 or 24 or 29 or 28 or 25 or 22 or 23 or 26

32. diet therapy.sh.

33. exp diet/ or exp diet, atherogenic/ or exp diet, cariogenic/ or fasting/

34. diet*.ab,ti.

35. (fruit* or vegetable*).af.

36. (diet* adj (modif* or intervention* or change*)).af.

37. (high fat* or low fat* or fatty food* or fat content or dietary fat*).af.

38. (food intake or energy intake or fat intake).af.

39. (fasting or modified fasting).af.

40. (energy-dense food* or energy dense food* or sugar content or fast food).af.

41. (healthy nutrition or healthy eating or healthy choice*).af.

42. (low calorie* or control calorie* or reduced calorie*).af.

43. (breastfe* or formula milk).af.

44. (weightwatcher* or weight watcher*).af.

45. ((diet* or slim*) adj (club* or camp*)).af.

46. (correspondence adj (course* or program* or intervention*)).af.

47. 38 or 36 or 35 or 42 or 32 or 43 or 39 or 44 or 45 or 41 or 37 or 40 or 46 or 33 or 34

48. exp Psychotherapy/ or exp Psychotherapy, Group/

49. social support.mp. or exp Social Support/

50. exp Behavior Therapy/ or exp Cognitive Therapy/

51. (family therap* or group therap* or behavio* therap* or cognitive therap*).af.

52. counsel*.af.

53. exp Family Therapy/

54. (peer adj2 support).af.

55. ((lifestyle or life style) adj1 (chang* or intervention*)).af.

56. ((psychological or behavio?r*) adj1 (therap* or modif* or strateg* or program* or training or support)).af.

57. (complementary therap* or complementary medicine or alternative medicine).af.

58. (hypnotherapy or hypnotism).af.

59. exp Complementary Therapies/

60. 51 or 54 or 58 or 59 or 52 or 49 or 48 or 53 or 57 or 50 or 56 or 55

61. exp health policy/ or exp nutrition policy/

62. (health polic* or nutrition polic* or food polic* or school polic* or family polic* or local polic* or national polic*).af.

63. (local strateg* or national strateg* or local intervention* or national intervention*).af.

64. (local program* or national program* or local campaign* or national campaign*).af.

65. 61 or 62 or 64 or 63

66. exp health promotion/ or exp health education/ or exp primary prevention/

67. obesity prevention.af.

68. (prevent* measure* or prevent* strateg* or prevent* intervention* or prevent* campaign*).af.

69. weight gain prevention.af.

70. health promotion.af.

71. health education.af.

72. health attitude*.af.

73. 72 or 67 or 70 or 69 or 68 or 71 or 66

74. Randomized controlled trial.pt.

75. controlled clinical trial.pt.

76. exp clinical trial/ or clinical trial, phase i/ or clinical trial, phase ii/ or clinical trial, phase iii/ or clinical trial, phase iv/ or exp controlled clinical trial/ or exp multicenter study/ or exp randomized controlled trial/ or comparative study/ or evaluation studies/ or multicenter study/ or validation studies/

77. exp control groups/ or exp cross-over studies/ or exp double-blind method/ or exp matched-pair analysis/ or exp random allocation/ or exp single-blind method/

78. exp Placebos/

79. exp case-control studies/ or exp cohort studies/ or exp longitudinal studies/ or exp follow-up studies/ or exp prospective studies/ or exp intervention studies/

80. clinical trial.af.

81. outcome stud*.af.

82. intervention stud*.af.

83. prospectiv*.af.

84. placebo*.af.

85. random*.af.

86. (nonrandomi* or non randomi* or quasi randomi*).af.

87. ((single or double) adj2 (blind* or mask*)).af.

88. (study or studies or trial* or design*).ab,ti.

89. volunteer*.af.

90. (matched communit* or matched school* or matched population* or matched group* or matched pair*).af.

91. (experimental or quasiexperimental or quasi experimental).af.

92. (controlled adj2 clinical trial*).af.

93. 82 or 92 or 78 or 88 or 89 or 87 or 84 or 77 or 74 or 80 or 83 or 91 or 85 or 86 or 79 or 75 or 81 or 90 or 76

94. exp "review"/

95. review.pt.

96. exp meta-analysis/

97. ((systematic or literature) adj2 (review* or overview*)).af.

98. (systematic review or literature review* or literature synthesis or academic review).af.

99. (meta-analy* or meta analy* or metaanaly*).af.

100. (pooling or pooled analys*).af.

101. ((methodologic* or quantitative) adj2 (review or overview)).af.

102. 99 or 96 or 100 or 95 or 101 or 94 or 97 or 98

103. exp europe/ or exp andorra/ or exp austria/ or exp belgium/ or exp europe, eastern/ or exp finland/ or exp france/ or exp germany/ or exp gibraltar/ or exp great britain/ or exp greece/ or exp iceland/ or exp ireland/ or exp italy/ or exp liechtenstein/ or exp luxembourg/ or exp mediterranean region/ or exp monaco/ or exp netherlands/ or exp portugal/ or exp san marino/ or exp scandinavia/ or exp spain/ or exp switzerland/ or exp transcaucasia/ or exp vatican city/

104. ((south-east* or southeast* or south-west* or southwest* or north-east* or northeast* or north-west* or northwest*) adj1 europe*).af.

105. ((central or south* or east* or west*) adj1 Europe*).af.

106. (Europe* or European region or European countr* or European member*).af.

107. Albania.cp. or Albania.mp. or Albanian.mp

108. Belgium.cp. or Belgium.mp. or Belgian.mp.

109. Austria.cp. or Austria.mp. or Austrian.mp.

110. ((((Bosnia-Herzegovina.cp. or Bosnia-Herzegovina.mp. or Bosnia.mp.) and Herzegovina.mp.) or Bosnia.mp. or Bosnia.mp.) and Hercegovina.mp.) or Bosnian.mp.

111. Bulgaria.cp. or Bulgaria.mp. or Bulgarian.mp.

112. Croatia.cp. or Croatia.mp. or Croatian.mp.

113. Cyprus.cp. or Cyprus.mp. or Cypriot.mp. or Cyprian.mp. [mp=title, original title, abstract, name of substance word, subject heading word, unique identifier]

114. Czech Republic.cp. or Czech Republic.mp. or Czech.mp.

115. Denmark.cp. or Denmark.mp. or Faeroe Islands.mp. or Danish.mp. or Greenland.cp.

116. Estonia.cp. or Estonia.mp. or Estonian.mp. [mp=title, original title, abstract, name of substance word, subject heading word, unique identifier]

117. Finland.cp. or Finland.mp. or Finnish.mp.

118. France.cp. or France.mp. or French.mp. or Corsica.mp.

119. Germany.cp. or Germany.mp. or Germany, West.cp. or Germany, East.cp. or German.mp. or Federal Republic of Germany.mp. or Germany, Federal Republic of.mp. or German Democratic Republic.mp. or Democratic Republic of Germany.mp.

120. Greece.cp. or Greece.mp. or Greek.mp.

121. Hungary.cp. or Hungary.mp. or Hungarian.mp.

122. Iceland.cp. or Iceland.mp. or Icelandic.mp.

123. Ireland.cp. or Ireland.mp. or Irish.mp. or Eire.mp. or Ireland, Republic of.mp. or Irish Free State.mp.

124. Italy.cp. or Italy.mp. or Italian.mp. or Sardinian.mp.

125. Latvia.cp. or Latvia.mp. or Latvian.mp. [mp=title, original title, abstract, name of substance word, subject heading word, unique identifier]

126. Lithuania.cp. or Lithuania.mp. or Lithuanian.mp.

127. Luxembourg.cp. or Luxembourg.mp. or Luxemborg.mp. or Luxemburg.mp. or Luxembourgish.mp.

128. Malta.cp. or Malta.mp. or Maltese.mp.

129. Monaco.cp. or Monaco.mp. or Monegasque.mp.

130. Montenegro.cp. or Montenegro.mp.

131. Netherlands.cp. or Netherlands.mp. or Dutch.mp. or Holland.mp.

132. Norway.cp. or Norway.mp. or Norwegian.mp.

133. Poland.cp. or Poland.mp. or Polish.mp.

134. Portugal.cp. or Portugal.mp. or Madeira Island.mp. or Portuguese.mp.

135. Romania.cp. or Romania.mp. or Rumania.mp. or Roumania.mp. or Romanian.mp.

136. San Marino.cp. or San Marino.mp.

137. Serbia.cp. or Serbia.mp. or Serbian.mp.

138. Slovakia.cp. or Slovakia.mp. or Slovak Republic.mp. or Slovak.mp.

139. Slovenia.cp. or Slovenia.mp. or Slovenian.mp. or Slovene.mp.

140. Spain.cp. or Spain.mp. or Spanish.mp.

141. Sweden.cp. or Sweden.mp. or Swedish.mp.

142. Switzerland.cp. or Switzerland.mp. or Swiss.mp. or Liechtenstein.cp. or Liechtenstein.mp. or Leichtenstein.mp.

143. Turkey.cp. or Turkey.mp. or Turkish.mp.

144. Former Yugoslav Republic of Macedonia.cp. or Former Yugoslav Republic of Macedonia.mp. or FYROM.mp.

145. Great Britain.cp. or United Kingdom.mp. or UK.mp. or Isle Man.mp. or Northern Ireland.cp. or England.cp. or Scotland.cp. or Wales.cp. or Hebrides cp.mp. or British.mp. or Channel Islands cp.mp. or Alderney Island.mp. or Jersey Island.mp. or Sark.mp.

146. 103 or 104 or 105 or 106 or 107 or 108 or 109 or 110 or 111 or 112 or 113 or 114 or 115 or 116 or 117 or 118 or 119 or 120 or 121 or 122 or 123 or 124 or 125 or 126 or 127 or 128 or 129 or 130 or 131 or 132 or 133 or 134 or 135 or 136 or 137 or 138 or 139 or 140 or 141 or 142 or 143 or 144 or 145

147. 60 or 65 or 31 or 47

148. 93 or 102

149. 147 and 73 and 148 and 146 and 12

Search Field Descriptions:

/=MeSH Subject Heading

sh=MeSH Subject Heading

ti=Title

ab= Abstract

pt=Publication Type

af=All Fields

mp=title, original title, abstract, name of substance word, subject heading word, unique identifier

Appendix 2

Table 5: Scoring of the first-rate candidate interventions

Name of project	Country	Date project was conducted	Availability of information & easiness to contact people	Project includes evaluation	Nr of drivers project addresses	Project addresses both PA+Diet	Project addresses SES	Total score
Crete project	Greece	1992-98	yes	yes	4	yes	no	+/+/+/+/-
PAIDEIATROFI	Greece	2008-currently	yes	no	6	yes	yes	+/-/+/+/+
CHILT	Germany	2001-05	yes	yes	4	yes	no	+/+/+/+/-
TIGERKIDS	Germany	2005-12	yes	yes	5	yes	yes	+/+/+/+/+
BIG	Germany	2005-11	yes	yes	4	no	yes	+/+/+/-/+
KISS	Switzerland	2006-07	yes	yes	4	no	no	+/+/+/-/-
Walking for health	UK	2000-currently	yes	yes	4	no	yes	+/+/+/-/+
BIKE IT SUSTRANS	UK	2007-currently	yes	no	4	no	yes	+/-/+/-/+
APPLES	UK	1996-97	yes	yes	4	yes	no	+/+/+/+/-
Healthy Weight Communities	Scotland	2009-11	yes	yes (March 2011)	4	yes	yes	+/+/+/+/+
SHAPE UP EUROPE	EU	2006-08	no	yes	?	yes	yes	-/+/-/+/+

Appendix 3

Informed Consent Form

I am studying for a PhD in the Department of Sociology with co-supervision from the Medical School at the University of Warwick in England. In my research I would like to explore the principles of a sustainable strategy for prevention of obesity. I receive no sponsorship for my study.

AIM OF THE STUDY:

The aim of the study is to understand the factors which contribute to sustainability of effective interventions to prevent obesity in selected European countries. For this reason, I would like to examine, with your kind assistance, the structures that influence the outcomes of an intervention and also the context in which they are effective.

PROCEDURE:

I would like to interview you to explore your views as the: [position]
in the organization of the intervention: [name of project]
The time requirement is approximately 60-80 min.
Your participation in the study is voluntary and you can refuse to answer any question or stop the interview at any point.
If you agree, I would like to record the interview to help me capture everything you say. These recordings will not be shared with anyone else and after I have finished my analysis all recordings will be destroyed. I will make transcripts of some of the recordings. You will not be named and any personal identification will be removed. As far as possible, I will do my best to retain anonymity and I will avoid quotations that identify people. However, because of the nature of the research and the fact that the intervention will be eponymous I cannot guarantee anonymity, particularly in the case of key personnel. For this reason you have the right to see and I will offer the opportunity to read the transcripts and withdraw or veto any part of the transcript.

DECLARATION OF THE PARTICIPANT:

I have understood the aim of the study and I accept the invitation to participate voluntarily. I understand that any personal data collected will be treated in confidence and that no personal data will be published without my written consent. I understand that I have the right to withdraw my consent at any time and to require any data collected to be destroyed.

I consent to take part in an interview: ☐
I agree that this interview may be digitally recorded: ☐
Signature of participant: Signature of researcher:

Date: Date:

Appendix 4

Table 6: Interview topic guide in English

Introductory questions
• Can you tell me a bit about your role in the project?
• Did you have any previous experience in health promotion projects or in any other similar projects?
Explore issues in relation to the organisation and implementation of the project.
• Can you tell me about how the project was set up? (Any background with any other project that pre-existed? How staff is recruited and managed? Was the staff already in place or did you have to recruit and train people specifically for the project? How did you train people in different levels? Were there any problems with the staff? Was there any turnover in staff? Was that in middle management or in front-line staff?)
• What was the type of management and the power flow within the project?
• How was the project funded?
• What was your experience with the operation and delivery of events, roles and tasks, handling of everyday issues, communication, PR?
• Can you say if in the project there existed specific people or specific events with a specific impact on the project?
• Did the project work go the way it was initially planned? (If no, can you tell me about any changes you made?)
• Can you tell me about the resources (funding, personnel, or space) of the project? Were they sufficient? If efficient use was made, what do you think would be different if more resources were available?
• What were your ambitions in relation to the aims and objectives of the project?
Intervention's mechanisms-specific questions
• What factors support/have supported the successful engagement of participants?
• What factors constrain/have constrained the successful engagement of participants? How did you overcome the difficulties?
• What factors support/have supported the successful engagement of stakeholders?
• What factors constrain/have constrained the successful engagement of stakeholders? How did you overcome the difficulties?
General framework of exploring the context of the intervention
• What was in your view the socioeconomic level of the participants?
• Which factors in your opinion contributed to participation and mobilization of people in the project?
• Do you believe the social context and milieu that the project took place in influenced the development of the project? In what ways?
• Was there any background with similar projects in the specific context?
• What was the response of local people? How did their response influence the project's implementation? Any changes in response to these reactions?
• Did you ever face opposition or resistance from participants or parents of

participants? If yes, elaborate
General framework of exploring outcomes of the intervention
• What was for you personally the definition of ‘success’ for an event?
• Have you been able to identify evidence of such successes?
• Have you been able to identify if and what was changing from one activity to another?
• Do you believe that overall the program was effective?
Future impact of the project
• Do you think the program has the potential to have a more extensive impact in other areas?
• To what extent could the benefits continue beyond the project’s life? Or if the intervention ends, can the effects continue to exist?
Closing questions
• What did you learn, you personally, from participating in this project?
• In one word which term would you use to describe the project?
• Do you think there are other people I should interview?
• Is there anything else you would like to say or add?

Appendix 5

Table 7: Interview topic guide in German

Einführungsfragen
• Können Sie mir sagen etwas über Ihre Rolle in dem Projekt?
• Haben Sie bereits Erfahrungen in der Gesundheitsförderung Projekte oder in irgendeiner anderen ähnlichen Projekten?
Fragen in Bezug auf die Organisation und Durchführung des Projekts.
• Können Sie mir sagen, wie das Projekt aufgebaut? (Any Hintergrund mit einem anderen Projekt, das vorher existierte? Wie Mitarbeiter rekrutiert und verwaltet? War das Personal bereits vorhanden, oder Sie hatten zu rekrutieren und auszubilden Menschen spezifisch für das Projekt? Wie haben Sie trainiert Menschen in verschiedenen Ebenen? Gab es Probleme mit den Mitarbeitern? War jeder Umsatz in Personal? War das im mittleren Management oder in front-line Mitarbeiter?)
• Was war die Art des Managements und der Kraftfluss innerhalb des Projektes?
• Wie wurde das Projekt finanziert?
• Welche Erfahrungen haben Sie mit der Bedienung und Lieferung von Aktivitaten des Projektes, Rollen und Aufgaben, Umgang mit alltäglichen Problemen, Kommunikation, Public Relations?
• Können Sie sagen, wenn und ob in dem Projekt gab es bestimmte Personen oder Ereignisse mit spezifischen Auswirkungen auf das Projekt?
• Hat das Projekt Arbeit zu gehen, wie es ursprünglich geplant war? (Wenn nicht kannst du mir sagen über alle Änderungen, die Sie gemacht?)
• Können Sie mir sagen über die Ressourcen (Finanzmittel, Personal oder Materalien) des Projekts? Waren sie ausreichend, wenn eine effiziente Nutzung gemacht wurde, was würden Sie anders machen, wenn mehr Ressourcen zur Verfügung standen?
• Was waren Ihre Ziele in Bezug auf Ziele und Aufgaben des Projekts?
Interventionsmechanismus-spezifische Fragen
• Welche Faktoren haben das erfolgreiche Engagement der Teilnehmer unterstützt?
• Welche Faktoren behindern / beschränkt das erfolgreiche Engagement der Teilnehmenden? Wie haben Sie die Schwierigkeiten zu überwinden? Welche sind die Hindernisse?
• Welche Faktoren unterstützt haben das erfolgreiche Engagement der Akteure?
• Welche Faktoren behindern / beschränkt das erfolgreiche Engagement der Akteure haben? Wie haben Sie die Schwierigkeiten zu überwinden?
Allgemeiner Rahmen um den Kontext der Intervention zu untersuchen
• Was war aus Ihrer Sicht die sozioökonomische Niveau der Teilnehmer?
• Welche Faktoren Ihrer Meinung nach dazu beigetragen, Beteiligung und Mobilisierung der Menschen in das Projekt?
• Glauben Sie, dass der soziale Kontext und Milieu, dass das Projekt stattgefunden hat Einfluss auf die Entwicklung des Projekts? In welcher

Hinsicht?
• War relevant Hintergrund mit ähnlichen Projekten in den spezifischen Kontext?
• Wie war die Reaktion der Menschen vor Ort? Wie ihre Reaktion beeinflusst die Durchführung des Projekts? Alle Änderungen, die in Reaktion auf diese Reaktionen?
• Haben Sie jemals mit Opposition oder Widerstand von den Teilnehmern oder den Eltern der Teilnehmer getroffen? Wenn ja aufwendigen
Allgemeiner Rahmen um den Ergebnisse der Intervention zu untersuchen
• Was war für Sie persönlich die Definition von "Erfolg" für eine Veranstaltung?
• Haben Sie in der Lage, Beweise für solche Erfolge zu erkennen?
• Haben Sie in der Lage, festzustellen, ob und was mit der Zeit verändert wurde, an den Veranstaltungen des Projektes? Konnten Sie das Change sehen?
• Glauben Sie, das Programm war insgesamt effektiv?
Zukünftige Auswirkungen des Projekts
• Glauben Sie, dass das Programm hat das Potenzial, eine umfangreichere Auswirkungen in anderen Bereichen haben?
• Inwieweit könnten die Vorteile weiterhin über die Laufzeit des Projekts? Oder, wenn der Eingriff Enden können die Effekte fortbestehen?
Schlussfragen
• Was haben Sie gelernt, Sie persönlich von der Teilnahme an diesem Projekt?
• In einem Wort, mit welchen Bezeichnung würden Sie für das Projekt beschreiben?
• Gibt es etwas, was Sie gerne sagen, oder fügen würden?
• Glauben Sie, es gibt andere Leute, die ich mit denen diskutieren sollte?

Appendix 6

Table 8: Declaration of the research aim

'I am a doctoral student in the Department of Sociology with co-supervision from the Medical School at the University of Warwick in England. In my research I would like to apply a sociological approach in the evaluation of interventions that aim to prevent obesity. I would like to understand and explain what it is about a project which makes it work. In relation to how an intervention works part of the enquiry is to understand the management system and operationalization of the project and part of the enquiry is to understand the social and political context. I approach you: (name of the participant) for an interview because you are a key person in the intervention: (name of project) and your views on the organisation of the project can be valuable to my research. Any information that you are going to provide will be treated confidentially as well as the identity under which you provide the information. If you agree to be recorded during the interview, the transcripts will be used exclusively by me and they are at any time at your disposal. After the end of my research, your recordings will be destroyed (handing over of a double copy of the consent form). The views that you are going to provide will be then transcribed and analysed in order to help test my research propositions'